

United Republic of Tanzania

NATIONAL SAMPLE CENSUS OF AGRICULTURE
2002/2003

Volume Vm: REGIONAL REPORT: **SINGIDA REGION**



Cattle Rearing



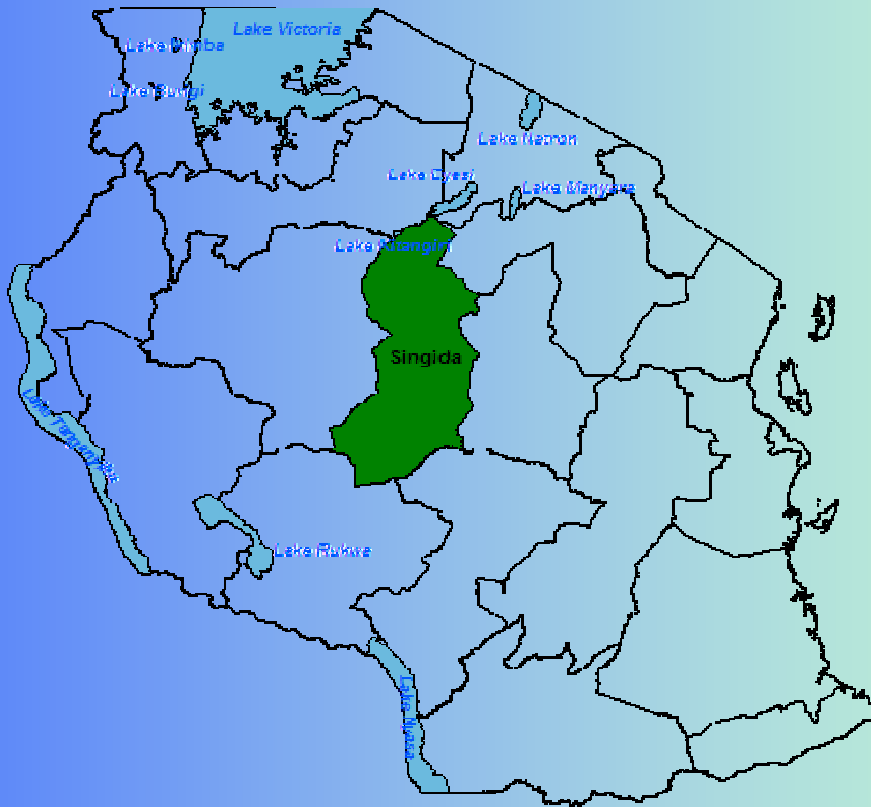
Fish Harvesting



Eggs Production



Maize Planting



Paddy Growing



Hand Cultivation



Indigenous Chicken



Irrigation Practice



Orange Marketing



Cassava Planting



Goat Rearing



United Republic of Tanzania

**NATIONAL SAMPLE CENSUS
OF AGRICULTURE
2002/2003**



VOLUME Vm: REGIONAL REPORT: SINGIDA REGION

*National Bureau of Statistics, Ministry of agriculture and Food Security,
Ministry of Water and Livestock Development, Ministry of Cooperatives and Marketing,
Presidents Office, Regional Administration and Local Government,
Ministry of Finance and Economic Affairs – Zanzibar*

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ACRONYMS

<i>ASDP</i>	<i>Agricultural Sector Development Project</i>
<i>CSPro</i>	<i>Census and Survey Processing Program</i>
<i>DFID</i>	<i>Department For International Development</i>
<i>DIAS</i>	<i>District Integrated Agricultural Survey</i>
<i>DS</i>	<i>District Supervisor</i>
<i>EAS</i>	<i>Expanded Agricultural Survey</i>
<i>EAs</i>	<i>Enumeration Areas</i>
<i>EU</i>	<i>European Union</i>
<i>FE</i>	<i>Field Enumerator</i>
<i>GDP</i>	<i>Gross Domestic Product</i>
<i>Ha</i>	<i>Hectares</i>
<i>IAS</i>	<i>Integrated Agricultural Survey</i>
<i>ICR</i>	<i>Intelligent Character Recognition</i>
<i>IEC</i>	<i>Information, Education and Communication</i>
<i>JICA</i>	<i>Japanese International Cooperation Agency</i>
<i>LRS</i>	<i>Long Rainy Season,</i>
<i>MAFS</i>	<i>Ministry of Agriculture and Food Security</i>
<i>MCM</i>	<i>Ministry of Co-operatives and Marketing</i>
<i>MWLD</i>	<i>Ministry of Water and Livestock Development</i>
<i>NBS</i>	<i>National Bureau of Statistics</i>
<i>NGO</i>	<i>Non Governmental Organization</i>
<i>NMS</i>	<i>National Master Sample</i>
<i>NSCA</i>	<i>National Sample Census of Agriculture</i>
<i>NSGRP</i>	<i>National Strategy for Growth and Reduction of Poverty</i>
<i>PORALG</i>	<i>President's Office, Regional Administration and Local Government</i>
<i>PPS</i>	<i>Probability Proportional to Size</i>
<i>PSU</i>	<i>Primary Sampling Unit</i>
<i>RAAS</i>	<i>Rapid Appraisal Agricultural Survey</i>
<i>RS</i>	<i>Regional Supervisor</i>
<i>RSM</i>	<i>Regional Statistical Manager</i>
<i>SAC</i>	<i>Scotts Agriculture Consultancy Ltd</i>
<i>SPSS</i>	<i>Statistical Package for Social Science</i>
<i>SRS</i>	<i>Short Rainy Season</i>
<i>TOT</i>	<i>Training of Trainers</i>
<i>ULG</i>	<i>Ultek Laurence Gould</i>
<i>UNDP</i>	<i>United Nations Development Programme</i>
<i>UNFAO</i>	<i>United Nations Food and Agriculture Organization</i>
<i>VPO</i>	<i>Vice President Office</i>

PREFACE

At the end of the 2002/03 Agriculture Year, the National Bureau of Statistics and the Office of the Chief Government Statistician in Zanzibar in collaboration with the Ministries of Agriculture and Food Security; Water and Livestock Development; Cooperatives and Marketing as well as the Presidents Office, Regional Administration and Local Government (PORALG) conducted the Agriculture Sample Census. This is the third Agriculture Census to be carried out in Tanzania, the first one was conducted in 1971/72, the second in 1993/94 and 1994/95 (during 1993/94 data on household characteristics and livestock count were collected and data on crop area and production in 1994/95).

It is considered that this census is one of the largest to be carried out in Africa and indeed in many other countries of the world. The census collected detailed data on crop production, crop marketing, crop storage, livestock production, fish farming, tree farming, access to infrastructures and services and poverty indicators.

In addition to this, the census was large in its coverage as it provides data that can be disaggregated at district level and thus allow comparisons with the 1998/99 District Integrated Agricultural Survey. The census covered smallholders in rural areas only and large scale farms. This report presents Singida region data disaggregated to district level. It was very difficult to discuss all variables collected in a single report hence the analysis was based on the most important smallholder variables. The rest of the variables are found in the attached annex of table of results. The analysis in the report includes time series comparisons using data from the previous censuses and surveys.

The extensive nature of the census in relation to its scope and coverage is a result of the increasing demand for more detailed information to assist in the proper planning of this sector and in the administrative decentralization of planning to district level. It is hoped that this report will provide new insights for planners, policy makers, researchers and others involved in the agricultural sector in order to improve the prevailing conditions faced by crop producers and livestock keepers in the country.

On behalf of the Government of Tanzania, I wish to express my appreciation for the financial support provided by the development partners, in particular, the European Union as well as DFID, UNDP, Japanese Government, JICA and others who contributed through the pool fund mechanism.

Finally, my appreciation goes to all those who in one-way or the other contributed to the success of the survey. In particular, I would also like to mention the enormous effort made by the Planning Group composed of professionals from the Agriculture Statistics Department of the National Bureau of Statistics (NBS), the Office of the Chief Government Statistician in Zanzibar (OCGS) and the Statistics Unit of the Ministry of Agriculture and Food Security (MAFS) with technical assistance provided by Ultec Lawrence Gould (ULG), Scotts Agriculture Consultancy Ltd and the Food and Agriculture Organisation of the United Nations (FAO).

Additionally, I would like to extend my appreciation to all professional staff of the National Bureau of Statistics, the sector Ministries of Agriculture and PORALG, the Consultants as well as Regional and District Supervisors and field enumerators for their commendable work. Certainly without their dedication, the census would not have been such a success.



Albina A Chuwa

**The Director General
National Bureau of Statistics**

EXECUTIVE SUMMARY

The executive summary highlights the main survey results obtained during the National Sample Census of Agriculture 2002/03. This report covers small-scale agriculture households in rural areas of Singida region that were selected using statistical sampling techniques. The results in the report do not cover urban areas and large-scale farmers.

The highlights describe the important findings in relation to agricultural production, productivity, husbandry, access to resources, levels of involvement in agricultural related activities and poverty in Singida region and indicators for one to get an overview, at regional level, of the rural agricultural households and their levels of involvement in agricultural related activities.

i) Household Characteristics

The number of agricultural households in Singida region was 179,915 out of which 06,837 (53.8%) were involved in growing crops only, 516 (0.3%) rearing livestock only and 82,563 (45.9%) were involved in crop production as well as livestock keeping. In summary, Singida region had 179,400 households involved in crop production and 83,079 involved in livestock production.

Most of the agricultural households ranked annual crop farming as an activity that provides most of their cash income followed by tree/forest resources, off farm income, livestock keeping/herding, remittances, permanent crop farming and fishing/hunting

The region had a literacy rate of 73 percent. The highest literacy rate was in Singida Urban district (81%) followed by Singida Rural district (78%), Iramba district (71%) and Manyoni district (66%). The literacy rate for the heads of households in the region was 66 percent.

The number of heads of agricultural households with formal education in Singida region was 116,473 (65%), those without formal education were 63,442 (35%) and those with only adult education were 2,235 (1%). The majority of heads of agricultural households (62%) had primary level education whereas only 3 percent had post primary education.

In Singida region 92,591 (51%) households had one household member each involved in off-farm income generating activity, 49,008 (27%) households had two household members each involved in off-farm income generating activities and 17,437 (10%) households had more than two household members each involved in off-farm income generating activities.

ii) Crop Production

▪ Land Area

The total area of land available to smallholders was 463,150 ha. The regional average land area utilised for crop production per crop growing household was only 2.2 ha. This figure was higher than the national average of 2.0 hectares.

▪ Planted Area

The area planted with annual crops and vegetables was 321,419 hectares out of which 2,292 hectares (0.71%) were planted during dry season and 319,128 hectares (99.29%) during long rainy season.

The planted area occupied by cereals was 243,745 ha (76.4% of the total area planted with annuals). This was followed by oil seeds and oil nuts (52,843 hectares, 16.6%), pulses (13,342 hectares, 4.2%), roots and tubers (5,724 hectares, 1.8%), cash crops (2,226 hectares, 0.7%) and fruit and vegetables (1,249 hectares, 0.4%).

▪ **Maize**

Maize dominated the production of cereal crop in the region. The number of households growing maize in Singida region during the long rainy season was 132,667, (74% of the total crop growing households in the region during the long rainy season). The total production of maize during the long rainy season was 54,056 tonnes from a planted area of 135,482 hectares resulting in a yield of 0.4 t/ha. Other crops in order of their importance (based on area planted) were sorghum, bulrush millets, wheat, paddy and finger millets.

The average area planted with maize per maize growing household ranged from 0.84 hectares in Singida Rural district to 1.20 hectares in Iramba district. Iramba district had the largest planted area of maize (60,761 ha) followed by Singida Rural (42,787 ha), Manyoni (32,035 ha) and Singida Urban (1,694 ha).

▪ **Sorghum**

Sorghum is the second most important cereal crop in the region in terms of planted area. The number of households that grew sorghum in Singida region during the long rainy season was 82,809. This represented 46 percent of the total crop growing households in Singida region in the long rainy season.

▪ **Oil Seeds**

The total production of oil seeds was 24,367 tonnes. The most cultivated oil seed crop was sunflower. The production for this crop was 21,002 tonnes, which constituted 86 percent of the total oil seeds production, followed by groundnuts 2,462 tonnes (10%) and simsim 887 tonnes (4%). The production of the other fruit and vegetable crops was relatively small.

▪ **Permanent Crops**

The area of smallholders planted area with permanent crops was 9,242 hectares which is 3 percent of the area planted with annual crops in the region. The most important permanent crop was mango which had a planted area of 3,784 ha (40 percent of the total area planted with permanent crops) followed by bananas 3,373 ha (36%) and guava 1,268 ha (14%).

▪ **Improved Seeds**

The planted area using improved seeds was 62,511 ha which represents 20 percent of the total planted area with the annual crops and vegetables. The percentage use of improved seeds was mainly in the long rainy season (95.5%) while in the short rainy season was only 0.5%.

▪ **Use of Fertilizers**

The use of fertilizers on annual crops was very small with the application of fertilisers to a planted area of only 129,050 ha (40% of the total planted area in the region). The planted area without fertilizer for annual crops was 190,078 hectares representing 60 percent of the total planted area with annual crops. Of the planted area with fertiliser application, farm yard manure was applied to 119,610 ha which represented 37.5 percent of the total planted area. This was followed by compost (5,952 ha, 4.6%). Inorganic fertilisers were used on a small area which represented only 2.7 percent of the area planted with fertilisers

- **Irrigation**

In Singida region, the area of annual crops and vegetables under irrigation was 3,443 ha representing 1.1 percent of the total area planted. The district with the largest planted area under irrigation with annual crops was Manyoni (4,202 ha, 35% of the total irrigated planted area with annual crops in the region). This is closely followed by Singida Rural with (3,916 ha, 32%), Iramba (2,867 ha, 24%) and Singida Urban (1,113 ha, 9%). When expressed as a percentage of the total area planted in each district, Singida Urban had the highest with 10.2 percent of the planted area in the district under irrigation. This is followed by Manyoni (6.7%), Singida Rural (3.4%) and Iramba

- **Crop Storage**

There were 179,391 crop growing households (14.7% of the total crop growing households) that reported storing various agricultural products in the region.

The most important stored crop was maize with 115,361 households storing 8,366 tonnes as of 1st January 2004. This was followed by sorghum and millets (96,374 households, 5,413t), beans and pulses (15,765 households, 230t) and groundnuts/bambaranuts (4,894 households, 119t) and paddy (4,894 household, 387t). Other crops were stored in very small amounts.

- **Crop Marketing**

The number of households that reported selling crop was 81,720 which represented 45 percent of the total number of crop growing households. The percent of crop growing households selling crops was highest in Manyoni (52%) followed by Singida Rural (50%) and Iramba (40%).

- **Agricultural Credit**

In Singida region, few agricultural households (2,698, 1.5%) accessed credit, out of which 1,516 (56%) were male-headed households and 1,182 (44%) were female headed households. In Singida Urban district only female headed households got credit for agriculture purposes, whereas in Singida Rural district only male households accessed credit. In Manyoni and Iramba districts both male and female headed household's accessed agricultural credit.

- **Crop Extension Services**

The number of agricultural households that received crop extension was 86,702 (48% of total crop growing households in the region). Some districts have more access to extension services than others with Iramba district having a relatively high proportion of households that received crop extension messages (71.5%), followed by Singida Urban (36.9%), Singida Rural (36.8%) and Manyoni (33.8%).

- **Soil Erosion and Water Harvesting Facilities**

The number of agricultural households that reported the presence of soil erosion and water harvesting facilities on their farms was 15,529. This number represented 9 percent of total number of agricultural households in the region. The proportion of farmers with soil erosion control and water harvesting facilities was highest in Singida Rural district (11%) followed by Iramba (10%), Singida Urban (6%) and Manyoni (1%).

- (iii) **Livestock and Poultry Production**

- **Cattle**

The total number of cattle in the region was 1,257,159. Cattle were the dominant livestock in the region followed by goats, sheep and pigs. The region had 7.5 percent of the total cattle population on the Tanzanian Mainland. The number of indigenous cattle was 1,255,118 head (99.8% of the total number of cattle in the region), 1,115 (0.09%) were dairy breeds and only 925 (0.07%) were beef breeds.

- **Goats**

The number of goat-rearing-households in the region was 60,387 (34% of all agricultural households) with a total of 684,420 goats giving an average of 11 head of goats per goat-rearing-households.

- **Sheep**

The number of sheep-rearing households was 39,179 (22% of all agricultural households) with a total of 309,938 sheep giving an average of 8 heads of sheep per sheep-rearing household.

- **Pigs**

The number of pig-rearing households in the region was 2,554 (1.4% of the total agricultural households) rearing about 6,375 pigs. This gave an average of 3 pigs per pig-rearing household.

- **Chicken**

The number of households keeping chickens was 125,895 raising 1,658,178 chickens. This gives an average of 13 chickens per chicken-rearing household. In terms of total number of chickens in the country Singida ranked ninth out of the 21 Mainland regions.

- **Use of Draft Power**

The region has 199,820 oxen that were used to cultivate 182,070 hectares of land. This represented only 8.9 percent of the total oxen found on the mainland. The largest area cultivated using oxen was found in Iramba district (105,194 ha, 58% of the total area cultivated using oxen).

- **Fish Farming**

There was no fish farming in the region.

iv) Poverty Indicators

- **Availability of Toilets**

It was estimated that 88.7 percent of all rural agricultural households used the traditional pit latrines, 3.9 percent used flush toilets and 0.4 percent had improved pit latrines. The remaining 0.2 percent of households had other unspecified types of toilets. Households with no toilet facilities represented 6.8 percent of the total agriculture households in the region.

- **Household Assets**

The radio was the most owned asset with 38.6% households owning it followed by bicycle (29.9%), iron (12.1%), wheelbarrow (4.4%), vehicle (0.8%), mobile phone (0.8%), television/video (0.4%), and landline phone (0.3%).

- **Source of Lighting Energy**

Wick lamp was the most common source of lighting energy in the region. About 72.8 percent of the total rural households used this source of energy followed by hurricane lamp (17.5%), firewood (4.9%), pressure lamp (3.9%), mains electricity (0.7%), solar (0.1%) and gas or biogas (0.6%).

▪ **Energy for Cooking**

The most prevalent source of energy for cooking was firewood, which was used by 95.1 percent of all rural agricultural households. The second most common source of energy for cooking was crop residues (2.3%) and charcoal (1.7%). The rest of energy sources accounted for 0.9 percent. These were solar energy (0.4%), mains electricity (0.2%), paraffin/kerosene (0.1%), bottled gas (0.1%) and livestock dung (0.1%).

▪ **Roofing Materials**

The most used roofing material (for the main dwelling) was grass and mud and it was used by 73.2 percent of the rural agricultural households. This was followed by iron sheets (20.7%). Other roofing materials were grass/leaves (5.4%), asbestos (0.2%), tiles (0.1%) and others (0.3%).

▪ **Number of Meals per Day**

About 66.5 percent of the holders in the region took two meals per day, 30.3 percent took three meals, 3.0 percent took one meal and 0.2 percent took four meals.

▪ **Food Security**

In Singida region, 61,025 households (34% of the total agricultural households in the region) said they rarely experienced problems in satisfying the household food requirement. However 9,646 (5%) said they sometimes experience problems, 17 percent often experienced problems and 14 percent always had problems in satisfying the household food requirement. About 31 percent of the agricultural households said they did not experience any food sufficiency problems

▪ **Main Source of Cash Income**

Casual cash earnings were the main cash income earning activity reported by 29.6 percent of all rural agricultural households. The second main cash income earning activity was sales of livestock (16.5%) followed by selling of cash crops (16.2%), businesses (10.7%) and sales of food crops (9.1%). Only 6.6% of smallholder households reported the cash remittances as their main source of income, followed by forest products (6.5%) and wages and salaries (3.1%)

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1. BACKGROUND INFORMATION

1.1 Introduction

This part of the report presents a brief description of the regional profile by providing information on geographical location, land area, climate, administrative set up, population and socio-economic indicators. The information will provide the user with a general understanding of the region and its resources.

1.2 Geographical Location and Boundaries

Singida region is situated in Central Tanzania. It lies between longitudes 33° 27' 5" and 35° 26" east of Greenwich, and latitudes 3° 52" and 7° 34" south of the equator. Singida town is the regional headquarter. Arusha region bounds the region to the north, Dodoma region to the east, Mbeya and Iringa regions to the south, Tabora region to the west and Shinyanga to the northwest.

The region comprises four districts namely Iramba, Singida Rural, Manyoni and Singida Urban. The region headquarters is located in Singida Urban District.

1.4 Land Area

Singida region is divided into three administrative districts with three districts with three district councils and one town council namely: Iramba, Singida Rural, Manyoni and Singida Urban. The three districts cover an area of 49,341 square kilometers, equivalent to about six per cent of the total land area of Tanzania Mainland.

1.4 Climate

1.4.1 Temperature

Temperature in the region ranges between 15°C and 30°C depending on season and altitude. The coldest period in the year is July while the hottest period is in October and November.

1.4.2 Rainfall

The average annual rainfall ranges between 500-800 millimeters. In normal circumstances, rainfall usually takes place from mid-November ending in April or early May every year.

1.5 Population

According to the 2002 Population and Housing Census, there were 1,090,758 inhabitants in Singida region. The population of Singida region ranked 17th out of the 21 regions in Tanzania.

1.6 Socio - Economic Indicators

- The contributed about 154,719 million shillings (4%) to Gross Domestic Product (GDP) at current prices in 1998.
- The main cash crops in the region include cotton and tobacco. Cattle, Goats and Chicken have a significant contribution to GDP.

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- The road network is not well developed in Singida region despite the fact that, six regions around it. It has a road network with a total of 3,237.5 kms distributed in three criteria according to types of road surface. The tarmac road covers 15.5 kms, earth roads 2,534.5 kms and 687.5 kms.
 - The region is served by telephone, telefax and telex services. Also, the region has three post offices with some sub post offices.
 - The central railway line crosses the region in the southern part of Manyoni district. This line is very crucial economically to Singida region since it serves directly Kintiku, Makutopora, Saranda, Manyoni and itigi villages. Other villages served are Aghondi, Kitaraka and Kalangasi. This line serves passengers and transports goods and livestock (i.e cattle) to potential markets, particularly Dar es Salaam. There is also an extension of railway line from Manyoni to Singida region headquarters.
 - There is no airport in the region; hence there are no regular commercial flights. However, there are several private airstrips, which cater for light air craft mainly for emergency cases such as flying doctors. There are three airstrips in Manyoni, two in Singida and one in Iramba district.

The region is famous for producing both food and cash crops. The main food crops produced in Singida region include: maize, sorghum, bulrush Millets and finger Millets. The main cash crops include cotton and tobacco. Livestock keeping is also an important economic activity in the region.

2. INTRODUCTION

This part of the report provides the technical and operational description of the National Sample Census of Agriculture (NSCA), carried out in the rural areas of Tanzania Mainland and Zanzibar during the 2002/03 agricultural year. It details the background and the rationale for carrying out the NSCA in 2002/03 agricultural year. It also explains the sampling procedures, designing and implementation of the data processing system.

2.1 The Rationale for Conducting the National Sample Census of Agriculture

In 2003, the Government of Tanzania launched the Agricultural Sample Census as an important part of the Poverty Monitoring Master Plan which supports the production of statistics for advocacy of effective public policy, including poverty reduction, access to services, gender, as well as the standard crop production data normally collected in an agriculture census. The census is intended to fill the information gap and support planning and policy formulation by high level decision making bodies. It is also meant to provide critical benchmark data for monitoring Agriculture Sector Development Programme (ASDP) and other agriculture and rural development programs as well as prioritising specific interventions of most agriculture and rural development programs.

Following the decentralisation of the Government's administration and planning functions, there has been a pressing need for agriculture and rural development data disaggregated at regional and district levels. The provision of district level estimates will provide essential baseline information on the state of agriculture and support decision making by the Local Government Authorities in the design of District Agricultural Development and Investment Projects (DADIPS). The increase in investment is an essential element in the national strategy for growth and reduction of poverty.

This report (Volume V) is among the 21 regional reports for the mainland. Other Census reports include the Technical Report (Volume I), crop sector at national and regional levels including Zanzibar estimates (Volume II), Livestock Report (Volume III), Smallholder Household Characteristics and Access to Natural Resources Report (Volume IV), 21 Regional Reports for the Mainland (Volume V), Large Scale Farms Report (Volume VI) and a separate report for Zanzibar (Volume VII). In order to address the specific issue of gender, a separate thematic report on gender has been published. Other thematic reports will be produced depending on the demand and availability of funds. In addition to these reports two dissemination applications have been produced to allow users to create their own tabulations, charts and maps.

The report is divided into five main sections: Background Information, Introduction, Results, Evaluation and Conclusion and Appendices. The definitions relating to all aspects of this report can be found in the questionnaire (Appendix III).

2.2 Census Objectives

The 2003 Agriculture Sample Census was designed to meet the data needs of a wide range of users down to district level including policy makers at local, regional and national levels, rural development agencies, funding institutions, researchers, Non government Organisations (NGOs), farmer organisations, etc. As a result, the dataset is both more numerous in its sample and detailed in its scope compared to previous censuses and surveys. To date this is the most detailed Agricultural Census carried out in Africa. The census was carried out in order to:

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- Identify structural changes if any, in the size of farm household holdings, crop and livestock production, farm input and implement use. It also seeks to determine if there are any improvements in rural infrastructure and in the level of agriculture household living conditions;
 - Provide benchmark data on productivity, production and agricultural practices in relation to policies and interventions promoted by the Ministry of Agriculture and Food Security and other stake holders.
 - Establish baseline data for the measurement of the impact of high level objectives of the Agriculture Sector Development Programme (ASDP), National Strategy for Growth and Reduction of Poverty (NSGRP) and other rural development programs and projects.
 - Obtain benchmark data that will be used to address specific issues such as: food security, rural poverty, gender, agro-processing, marketing, service delivery, etc.

2.3 Census Coverage and Scope

The census was conducted for both large and small scale farms. The National Sample Census of Agriculture covered a total of 3,221 selected rural villages of Tanzania Mainland out of which 215 villages were from SINGIDA region.

The census covered agriculture in detail as well as many other aspects of rural development and was conducted using three types of questionnaires:

- Small scale farm questionnaire
- Community level questionnaire
- Large scale farm questionnaire

The small scale farm questionnaire was the main census instrument and it includes questions related to crop and livestock production and practices; population demographics; access to services, resources and infrastructure; issues on poverty, gender and subsistence versus profit making production units. The main sections covered are as follows:

- Identification (i.e. region, district, ward and village)
- Household and holding characteristics
- Household information
- Land ownership/tenure
- Land use
- Access and use of resources
- Crop and vegetable production
- Agro processing and by-Products
- Crop storage and marketing
- On-farm investment
- Access to farm inputs and implements
- Use of credit for agricultural purposes
- Tree farming/agro-forestry
- Crop extension services
- Livelihood constraints
- Animal contribution to crop production
- Livestock
- Livestock products

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- Fish farming
 - Livestock extension
 - Labour use
 - Access to infrastructure and other services
 - Household facilities

The community level questionnaire was designed to collect village level data such as access and use of common resources, community tree plantation and seasonal farm gate prices.

The large scale farm questionnaire was administered to large scale farms that were either privately or corporately managed. There will be a national report on large scale farming on Tanzania Mainland.

2.4 Legal Authority of the National Sample Census of Agriculture

The NSCA 2002/03 was conducted under the legal authority of the 2000 National Bureau of Statistics Act which, among other things, makes data collected from individuals strictly confidential and to be used for statistical purposes only.

2.5 Reference Period

Two types of reference periods were used namely the agricultural year and the reference date for livestock enumeration. The agricultural year 2002/03 (that is October 2002 to September 2003) was used for the data items that are related to crop production. The reference date of enumeration for livestock and poultry count was 1st October 2003.

2.6 Census Methodology

The main focus at all stages of the census execution was on data quality and this is emphasised in this section. The main activities undertaken include:

- Census organisation
- Tabulation plan preparation
- Sample design
- Design of census questionnaires and other instruments.
- Field pre-testing of the census instruments
- Training of trainers, supervisors and enumerators
- Information Education and Communication (IEC) campaign
- Data Collection
- Field supervision and consistency checks
- Data processing:
 - Scanning
 - ICR extraction of data
 - Structure formatting application
 - Batch validation application
 - Manual data entry application
 - Tabulation preparation using SPSS
- Table formatting and charts using Excel, map generation using ArcView and Freehand.
- Report preparation using Word and Excel.

2.6.1 Census Organization

The Census was conducted by the National Bureau of Statistics in collaboration with the sector ministries of agriculture, and the Office of the Chief Government Statistician in Zanzibar. At the national level the Census was headed by the Director General of the National Bureau of Statistics with assistance from the Director of Economic Statistics. The Planning Group, made up of staff from the National Bureau of Statistics, Department of Agricultural Statistics and three representatives from the Ministry of Agriculture and Food Security (Department of Policy and Planning), oversaw the overall operational aspects of the Census. At the regional level, implementation of census activities was overseen by the Regional Statistical Officer of NBS and the Regional Agriculture Supervisor from the Ministry of Agriculture and Food Security. At the District level, two supervisors from the President's Office, Regional Administration and Local Government (PORALG), managed the enumerators who also came from the same ministry.

Members of the Planning Group had a minimum qualification of a bachelor degree; the regional supervisors were agricultural economists, statisticians or statistical officers. The district supervisors and enumerators had diploma level qualifications in agriculture.

The Census and Surveys Technical Working Group provided support in sourcing financing, approving budget allocations and technical assistance inputs as well as monitoring the progress of the census. A Technical Committee for the census was established with members from key stakeholder organisations (i.e. NBS, sector ministries of agriculture, President's Office, Planning and Privatization (POPP), PORALG, University of Dar es Salaam (UDSM), Tanzania Food and Nutrition Centre (TFNC) and the Office of Chief Government Statistician (OCGS) in Zanzibar). The main function of the committee was to approve the proposed instruments and procedures developed by the Planning Group. It also approved the tabulations and analytical reports prepared from the Census data.

2.6.2 Tabulation Plan

The tabulation plan was developed following three user group workshops and thus reflects the information needs of the end users. It took into consideration the tabulations from previous census and surveys to allow trend analysis and comparisons.

2.6.3 Sample Design

The Mainland sample consisted of 3,221 villages. These villages were drawn from the National Master Sample (NMS) developed by the National Bureau of Statistics (NBS) to serve as a national framework for the conduct of household based surveys in the country. The National Master Sample was developed from the 2002 Population and Housing Census. In most cases, within each selected village, data was collected from a sub-sample of fifteen agricultural households. In few large villages thirty households were selected. The total Mainland sample was 48,315 agricultural households. In Zanzibar a total of 317 EAs were selected and 4,755 agricultural households were covered. Nationwide, all regions and districts were sampled with the exception of three urban districts (two from Mainland and one from Zanzibar).

In both Mainland and Zanzibar a stratified two stage sample was used. In the first stage, villages/enumeration areas (EAs) were selected with probability proportional to the number of villages in each district. In the second stage, 15 households were selected from a list of farming households in each Village/EA using systematic random sampling. Table 2.1 gives the sample size of households, villages and districts for Tanzania Mainland and Zanzibar.

Table 2.1: Census Sample Size

Number of	Mainland	Zanzibar	Total
Households	48,315	4,755	53,070
Villages/Eas	3,221	317	3,539
Districts	117	9	126
Regions	21	5	26

2.6.4 Questionnaire Design and Other Census Instruments

The census questionnaires were designed following user/producer meetings to ensure that the information collected was in line with their data needs. Several features were incorporated into the design of the questionnaire to increase the accuracy of the data:

- Where feasible all variables were extensively coded to reduce post enumeration coding error.
- The definitions for each section were printed on the opposite page so that the enumerator could easily refer to the instructions whilst interviewing the farmer.
- The responses to all questions were placed in boxes printed on the questionnaire, with one box per character. This feature made it possible to use scanning and ICR technologies for data entry.
- Skip patterns were used to avoid asking unnecessary questions
- Each section was clearly numbered, which facilitated the use of skip patterns and provided a reference for data type coding for the programming of CSPro, SPSS and the dissemination applications.

Besides the questionnaires, there were other instruments used:

- Village listing forms that were used for listing households in the villages and from this list a systematic sample of 15 agricultural households were selected from each village.
- Training manual which was used by the trainers for the cascade/pyramid training of supervisors and enumerators. This manual was trainers guiding document on the procedures to follow during the training
- Enumerator Instruction Manual which was used as reference material.

2.6.5 Field Pre-Testing of the Census Instruments

The Questionnaire was pre-tested in five locations (Arusha, Dodoma,,SINGIDA, Unguja and Pemba). This was done purposely to test the wording, flow and relevance of the questions and to finalise crop lists, questionnaire coding and manuals. In addition to this, several data collection methodologies had to be finalised, namely, livestock numbers in pastoralist communities, cut flower production, mixed cropping, use of percentages in the questionnaire and finalising skip patterns and documenting consistency checks.

2.6.6 Training of Trainers, Supervisors and Enumerators

Cascade/pyramid training techniques were employed to maintain statistical standards. The top level training was provided to 66 national and regional supervisors (3 per region plus Zanzibar). The trainers were members of the Planning Group and the trainees were from the National Bureau of Statistics and the sector ministries of agriculture. The second level training was for the district supervisors and enumerators. This training was conducted in the regions. In each region three training sessions were conducted for the district supervisors and enumerators. In addition to training in field level Census methodology and definitions, emphasis was placed on training the enumerators and supervisors in consistency checking. Tests were given to the enumerators and supervisors and the best 50 percent of the trainees were selected to administer the smallholder and community level questionnaires. This increased the number of interviews per enumerator but it also released finance to increase the number of supervisors and hence the Supervisor Enumerator Ratio. The household listing exercise was carried out by all trained enumerators.

2.6.7 Information, Education and Communication (IEC) Campaign

Information, Education and Communication (IEC) is an important aspect of any census/survey undertaking. This is due to the fact that inadequately informed and hence uncooperative citizens may jeopardize the entire census/survey. As far as the

2002/03 Agricultural Sample Census was concerned, the main objective of the IEC program was to sensitize and mobilize Tanzanians to support, cooperate and participate in the census exercise.

Radio, television, newspapers, leaflets, t-shirts and caps were used to publicise the Sample Census. T-shirts and caps were used by the field staff and the village chairmen as official uniforms during the field work. The village chairmen helped to locate the selected households.

2.6.8 Household Listing

The household listing exercise was done in seven days. During the listing exercise, forms ACLF1 and ACLF2 were administered. The information collected included the number of fields operated by the household, the number of different types of livestock and poultry. This information was used to determine the agricultural households. From the list of agricultural households, 15 households were selected for the interview. The selection was done using the Random Number Table.

2.6.9 Data Collection

Data collection activities for the 2002/2003 Agricultural Sample Census took three months from January to March 2004. The data collection methods used during the census was by interview and no physical measurements, e.g., crop cutting and field area measurement were taken. Field work was monitored by a hierarchical system of supervisors at the top of which was the Mobile Response Team followed by the national, regional, and district supervisors.

The Mobile Response Team consisted of three principal supervisors who provided overall direction to the field operation and responded to queries arising outside the scope of the training exercise. The mobile response team consisted of the Manager of Agriculture Statistics Department, Long-term Consultant and Desk Officer for the Census. Decisions made on definitions and procedures were then communicated back to all enumerators via the national, regional and district supervisors.

District supervision and enumeration were done by staff from the President's Office, Regional Administration and Local Government (PORALG). National and regional supervisions were provided by senior staff of the National Bureau of Statistics and the sector ministries of agriculture. During the household listing exercise 3,221 extension staff were used. For the enumeration of the small holder questionnaire, 1,611 enumerators were used and additional 5 percent enumerators were held in reserve in case of drop outs during the enumeration exercise.

2.6.10 Field Supervision and Consistency Checks

Enumerators were trained to probe the respondents until they were satisfied with the responses given before they recorded them in the questionnaire. The first check of the questionnaires was done by enumerators in the field during enumeration. The second check was done by the district supervisors followed by regional and national supervisors. Supervisory visits at all levels of supervision focused on consistency checking of the questionnaires. Inconsistencies encountered were corrected, and where necessary a return visit to the respondent was made by the enumerator to obtain the correct information. Further quality control checks were made through a major post enumeration checking exercise where all questionnaires were checked for consistencies by all supervisors in the district offices.

2.6.11 Data Processing

Data processing consisted of the following processes:

- Manual editing
- Data entry
- Data structure formatting
- Batch validation
- Tabulation
- Illustration production
- Report formatting

Manual Editing

Prior to scanning, all questionnaires underwent a manual cleaning exercise. This involved checking that the questionnaire had a full set of pages, correct identification and good handwriting. A score was given to each questionnaire based on the legibility and the completeness of enumeration. This score will be used to assess the quality of enumeration and supervision in order to select the best field staff for future censuses/surveys.

Data entry/Scanning and ICR extraction technologies

Scanning and ICR data capture technology was used for the small holder questionnaire. This not only increased the speed of data entry, it also increased the accuracy due to the reduction in keystroke errors. Interactive validation routines were incorporated into the ICR software to track errors during the verification process. The scanning operation was so successful that it is highly recommended that this technology be adopted for future censuses/surveys.

The Census and Surveys Processing Program (CSPro) was used to enter 2,880 of small holder questionnaires that were rejected by the Intelligent Character Recognition (ICR) extraction application.

Data structure formatting

A program was developed in visual basic to automatically alter the structure of the output from the scanning/extraction process in order to harmonise it with the manually entered data. The program automatically checked and changed the number of digits for each variable, the record type code, the number of questionnaires in the village, the consistency of the Village Identification (ID) code and saved the data of one village in a file named after the village code.

Batch validation

A batch validation program was developed in order to identify inconsistencies within a questionnaire. This is in addition to the interactive validation during the ICR extraction process. The procedures varied from simple range checking within each variable to more complex checking between variables. It took six months to screen, edit and validate the data from the smallholder questionnaire. After the long process of data cleaning, the results were prepared based on a pre-designed tabulation plan.

Tabulations

Statistical Package for Social Sciences (SPSS) was used to produce the Census results and Microsoft Excel was used to organize the tables and compute additional indicators.

Analysis and report preparation

The analysis in this report focuses on regional and district production estimates, districts comparisons and time series analysis. Microsoft Excel was used to produce charts; whereas Microsoft Word was used to compile the report.

Data quality

A great deal of emphasis was placed on data quality throughout the whole exercise from planning, questionnaire design, training, supervision, data entry, validation and cleaning/editing. As a result of this NBS believes that the Census is highly accurate and representative of what was experienced at field level during the Census year. With very few exceptions the variables in the questionnaire are within the norms for Tanzania and they follow expected time series trends when compared to historical data. Standard Errors and Coefficients of Variation for the main variables can be found in the Technical Report (Volume I).

2.7 Funding Arrangements

The Agricultural Sample Census was supported mainly by the European Union (EU) who financed most of the operational activities. Other funds for operational activities came from the Government of Tanzania, Government of Japan, United Nations Development Programme (UNDP) and other partners in the Pool Fund of the Vice President's Office (VPO). In addition to this, technical assistance was provided by the European Union (EU), Department for International Development (DFID) and Japanese International Cooperation Agency (JICA). Technical assistances were managed by Ultek Laurence Gould Consultants (ULG), Scotts Agriculture Consultancy Ltd (SAC) and the Food and Agriculture Organisation (FAO).

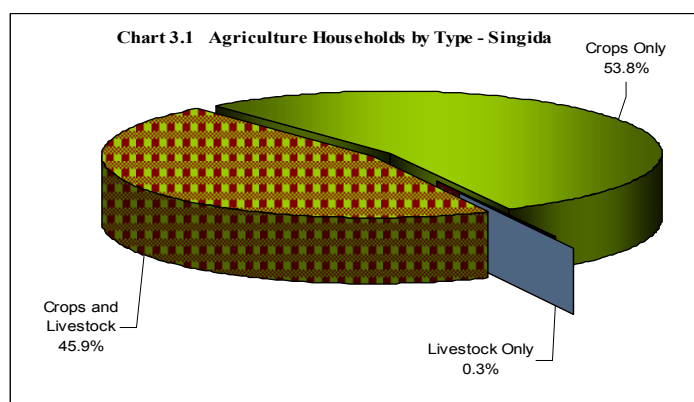
3. CENSUS RESULTS

This part of the report presents the census results of the census data for Singida region which are based on the data tables presented in Appendix A2. The results are presented in different forms including brief summaries, charts, condensed tables, graphs and maps in order to make it easier for the users to understand. Comparisons are made between related variables and between districts. Comparisons are also made with past censuses/surveys results such as the 1994/95 National Sample Census of Agriculture (NSCA), the 1995/96 and the 1996/97 Expanded Agricultural Surveys, the 1997/98 Integrated Agricultural Survey, the 1998/99 District Integrated Agricultural Survey and the 1999/00 Rapid Agricultural Appraisal Survey. The presentation of results is divided into four main sections which are household characteristics, crop results, livestock results and poverty indicators. Compared to previous censuses and surveys more effort has been placed in analyzing the results in order to formulate solid conclusions.

3.1 Household Characteristics

3.1.1 Type of Household

The number of agricultural households in Singida region was 179,915. The largest number of agriculture households was in Singida Rural 73,197 followed by Iramba 62,528, Manyoni 33,065 and Singida Urban 11,125. (Map 3.1) At district level, the highest density of Household



(50/km²) was found in Singida Urban and Iramba for each district (Map 3.2). Most households 96,837 (53.8%) were involved in growing crops only, 516 (0.3%) rearing livestock only, 82,563 (45.9%) were involved in crop production as well as livestock keeping and pastoralist were not found in the region (Chart 3.1) (Maps 3.3, 3.4, 3.5 and 3.6).

3.1.2 Livelihood Activities/Source of Income

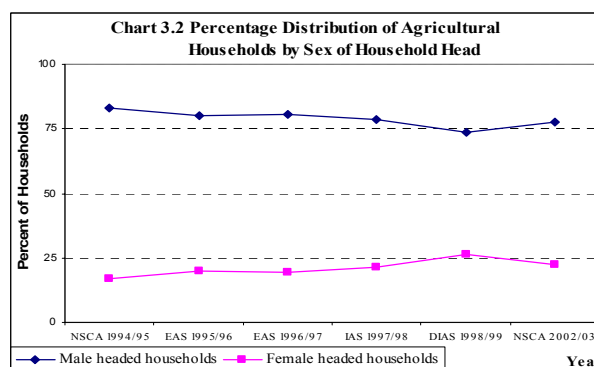
The census results for Singida region indicates that most of the agricultural households ranked annual crop farming as an activity that provides most of their cash income followed by tree/forest resources, off farm income, livestock keeping/herding, remittances, permanent crop farming and fishing/hunting (Table 3.1).

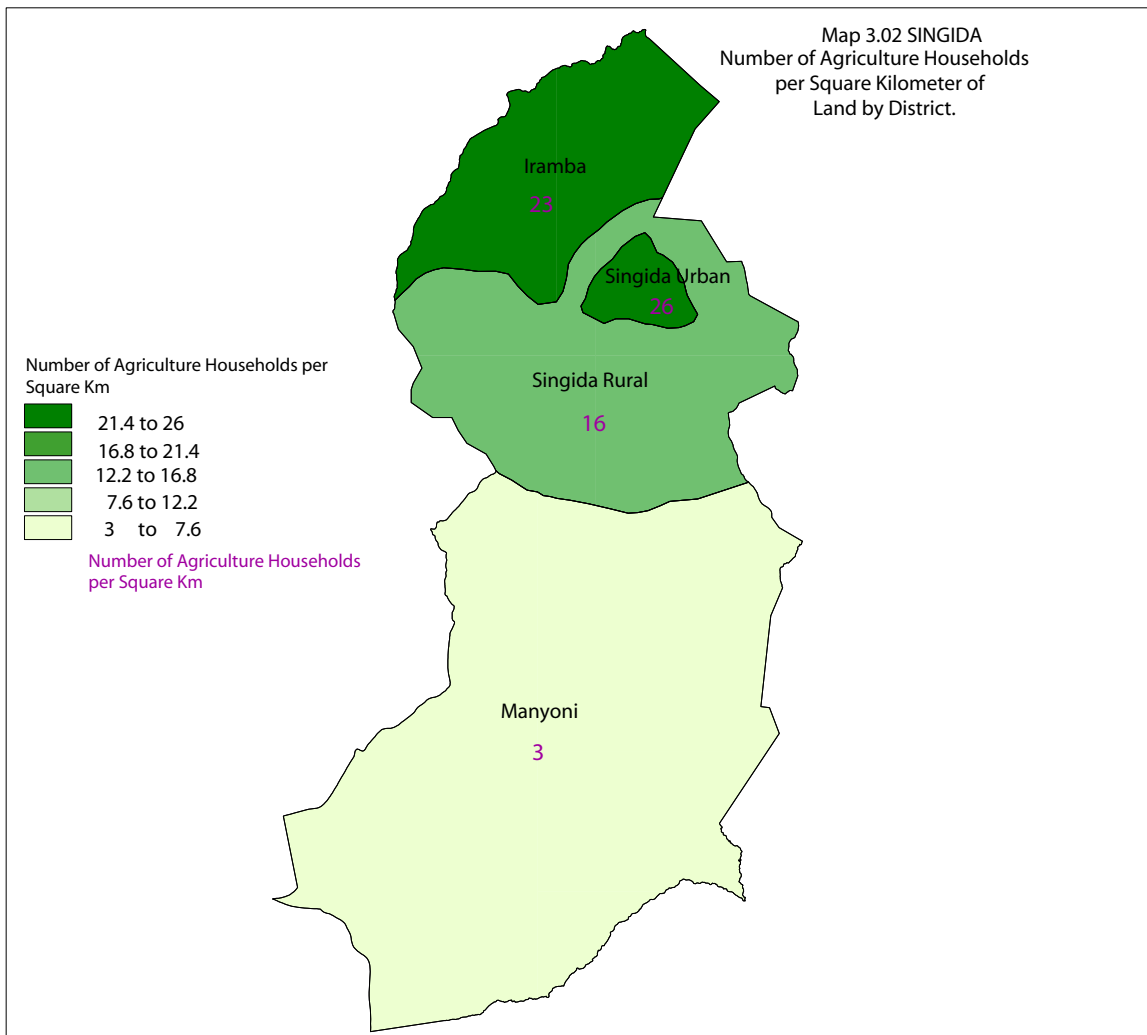
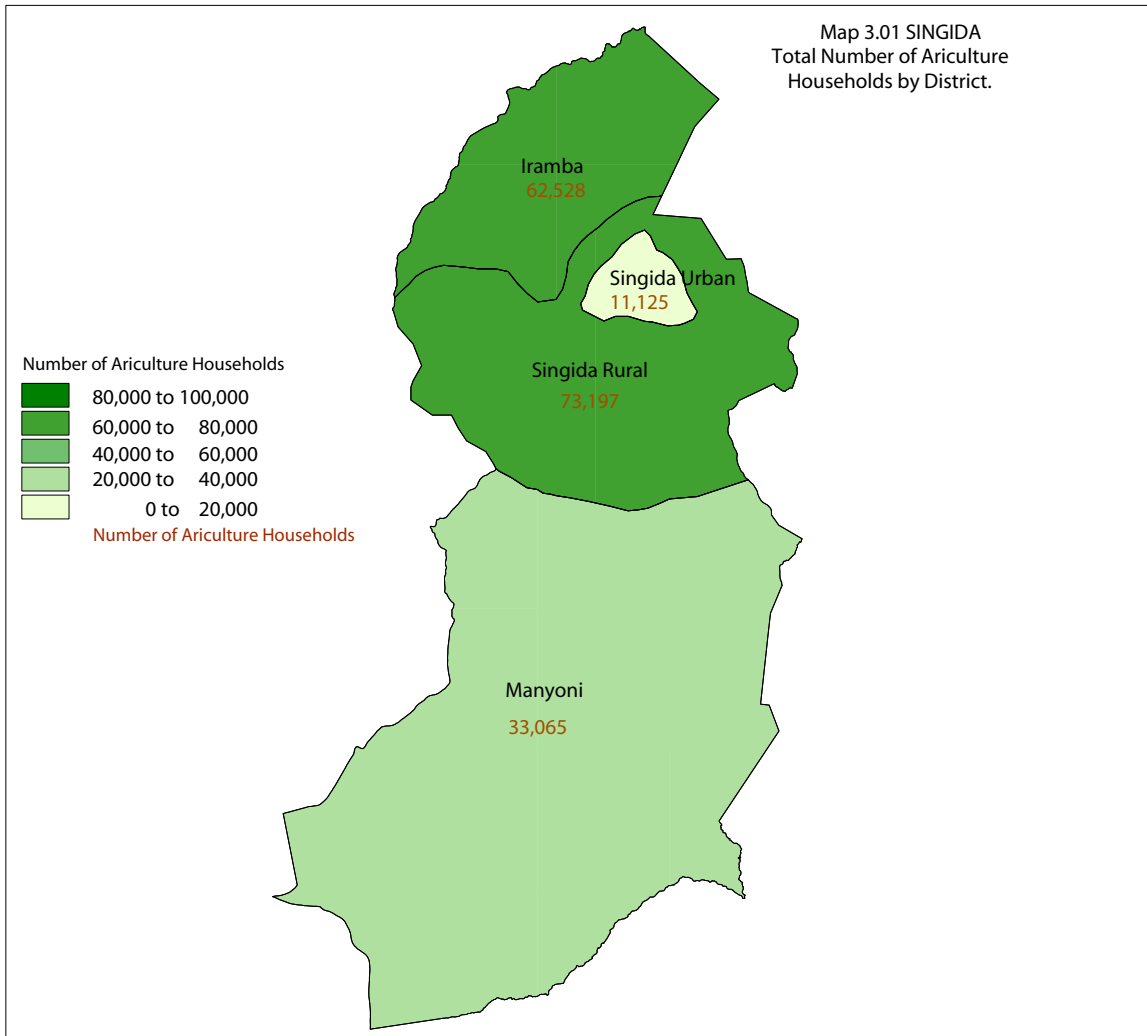
3.1.3 Sex and Age of Heads of Households

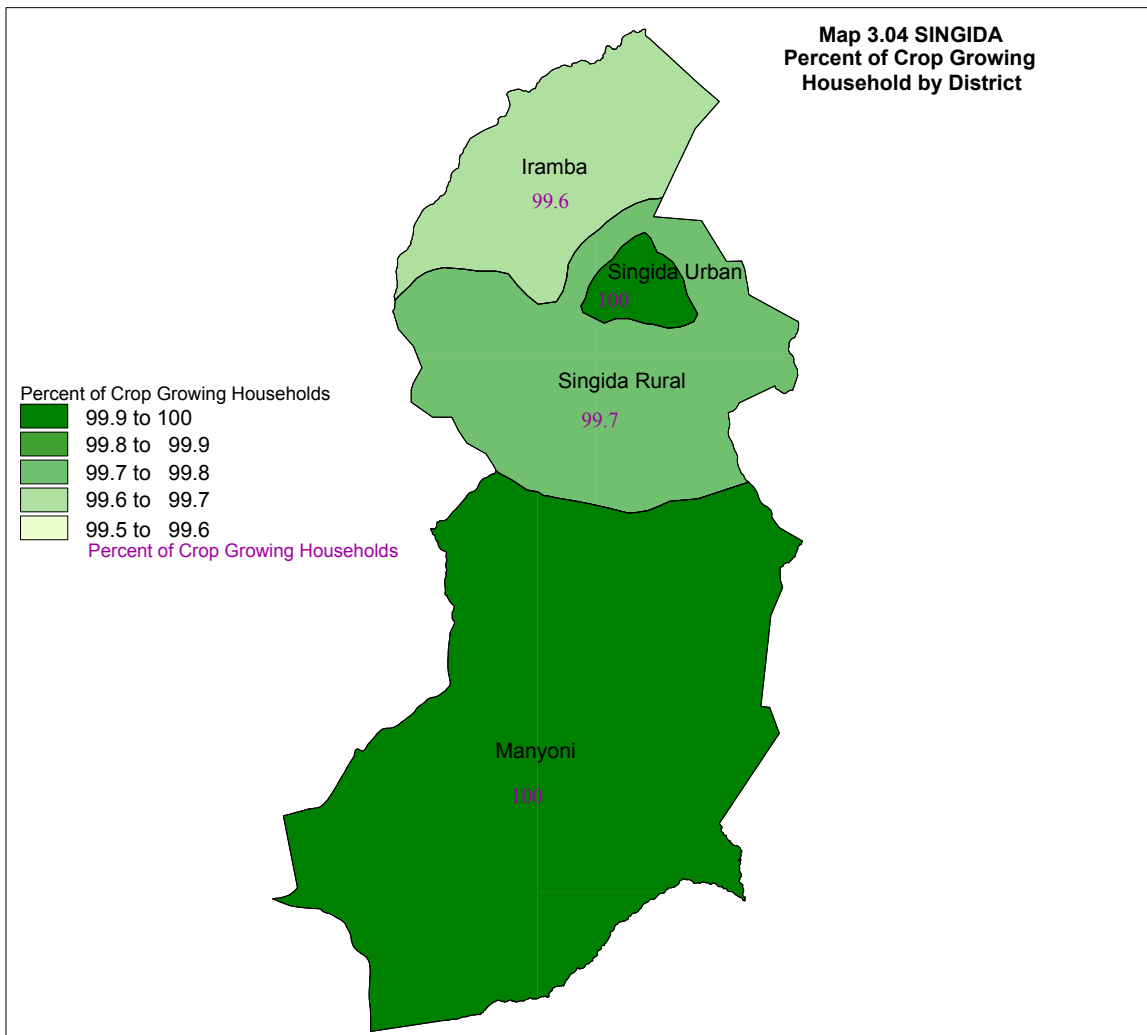
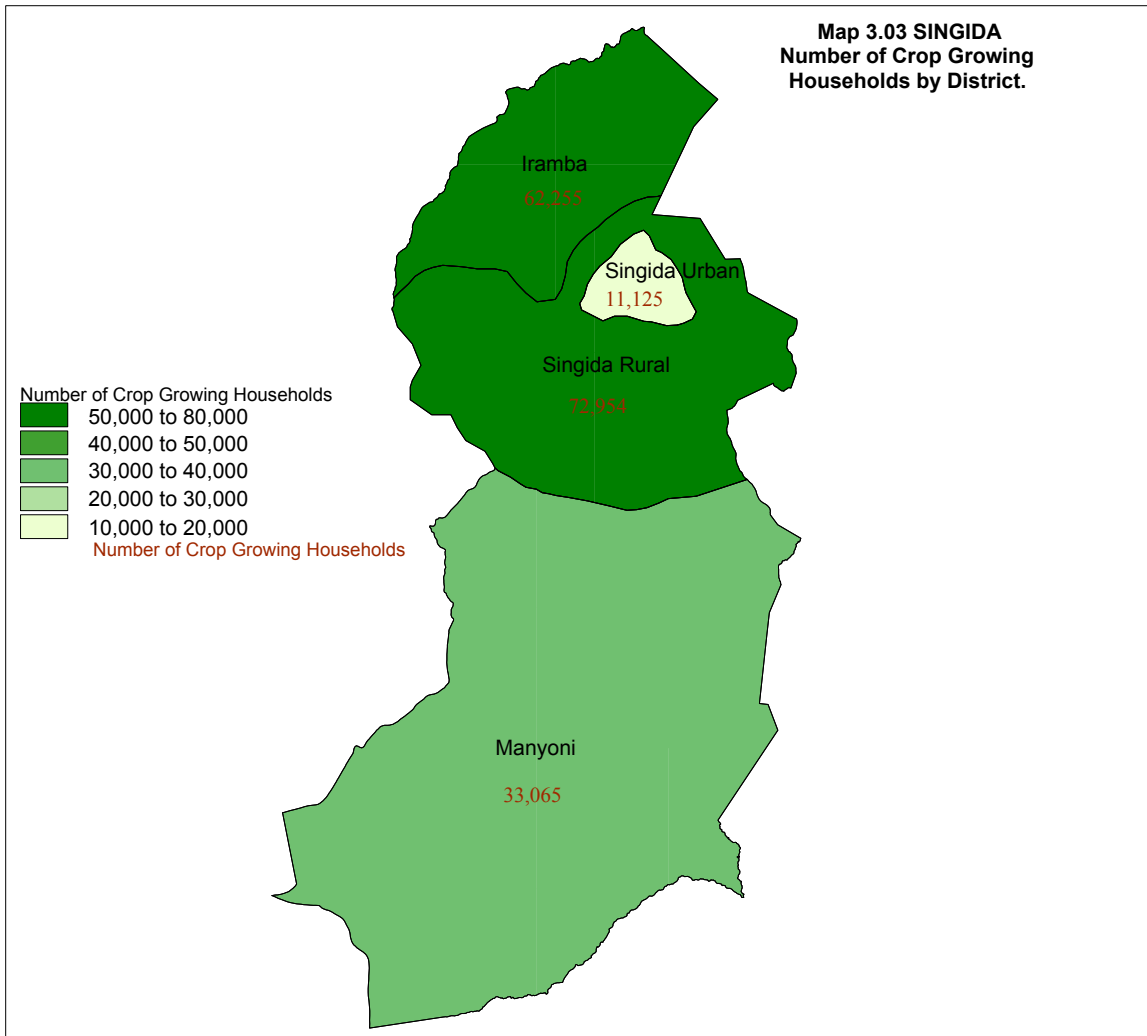
The number of male-headed agricultural households in Singida region was 139,553 (78% of the total regional agricultural households) whilst the number of female-headed households it was 40,362 (22% of the total regional agricultural households). The mean age of household heads was 47 years (45 years for male heads and 51 years for female heads) (Chart 3.2).

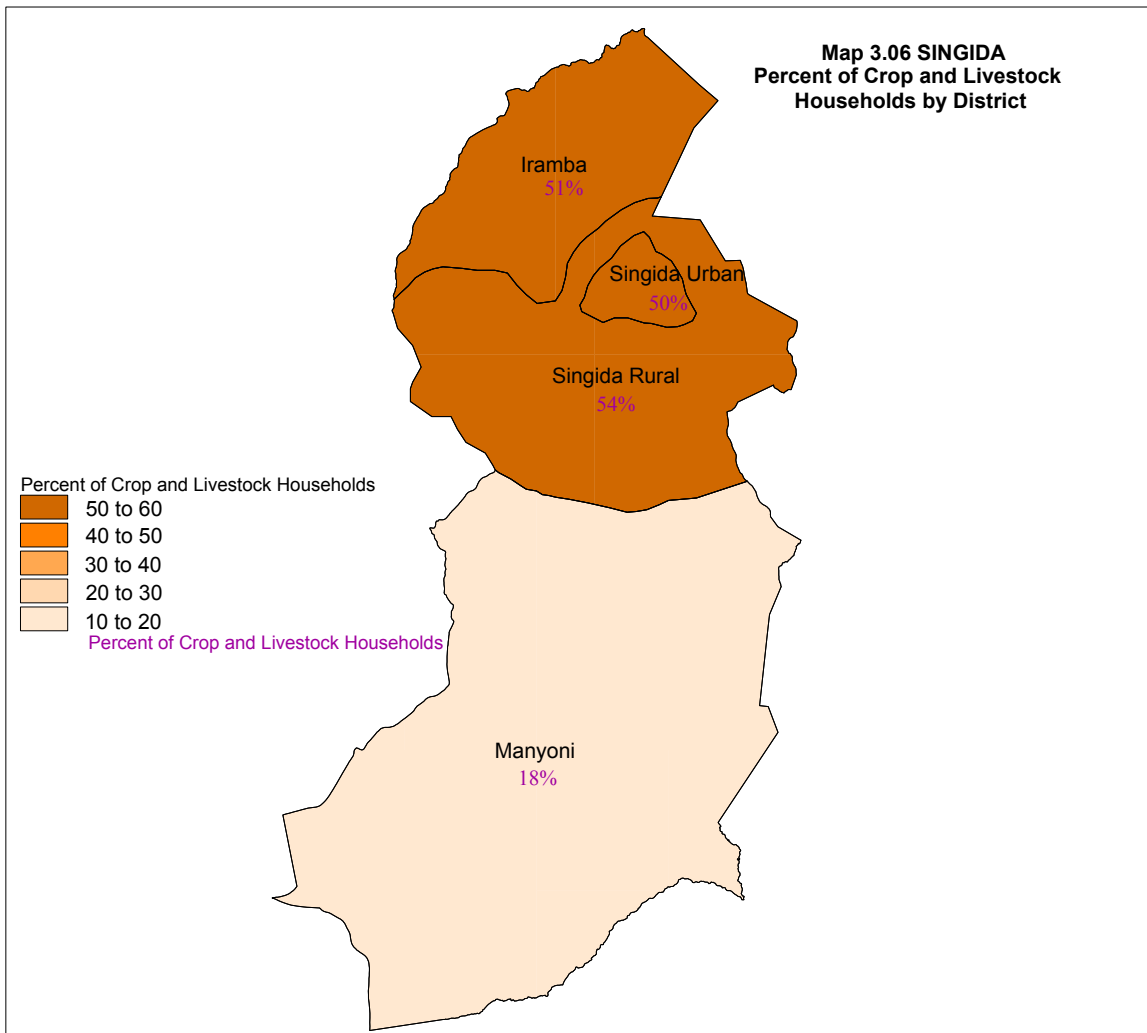
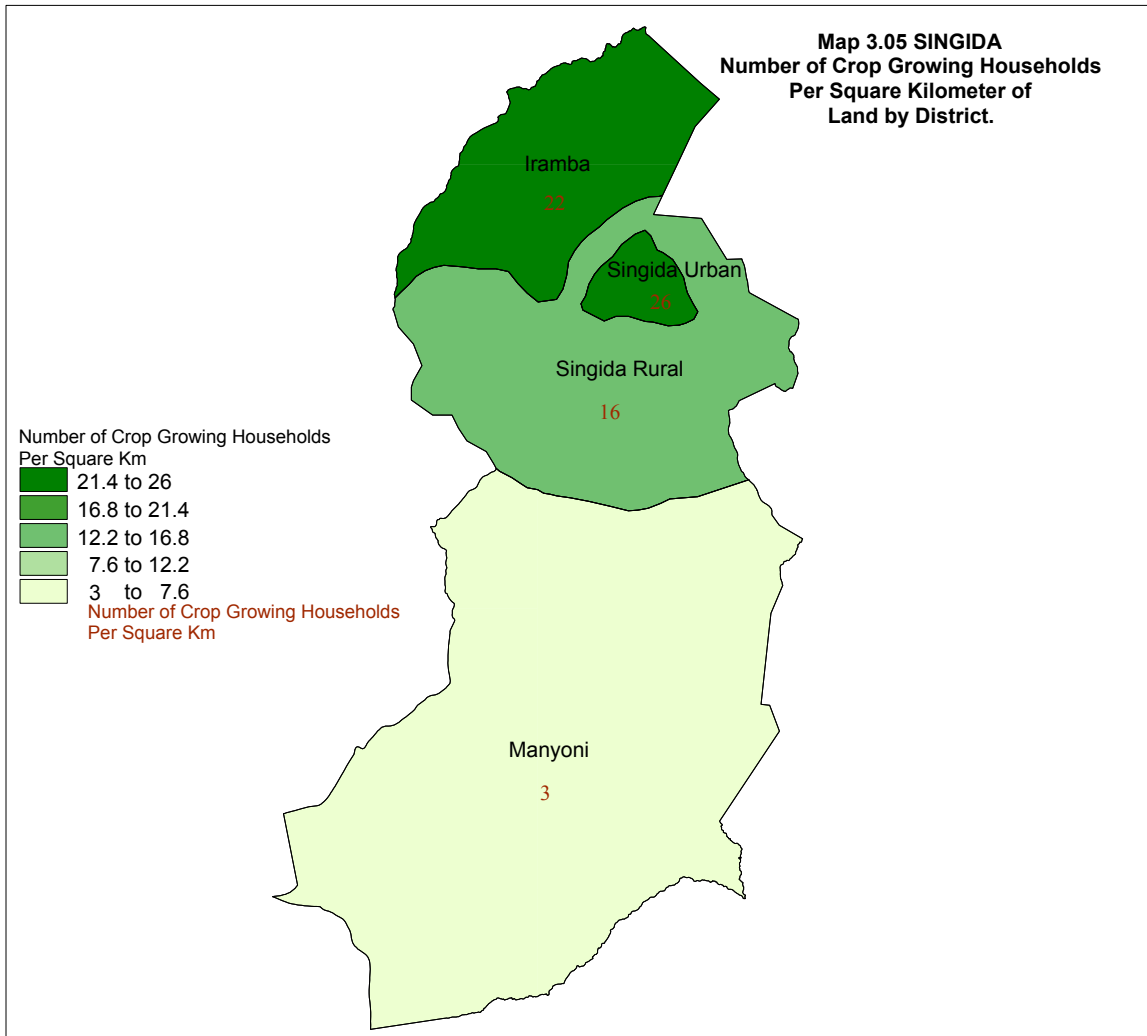
Table 3.1 The Livelihood Activities/Source of Income of the Households Ranked in Order of Importance by District

District	Livelihood Activity							
	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources	
Iramba	1	6	4	3	5	7	2	2
Singida R	1	5	4	3	6	7	2	2
Manyoni	3	6	4	1	5	7	2	2
Singida Urb	1	6	2	3	5	7	4	2
Total	1	6	4	3	5	7	2	2







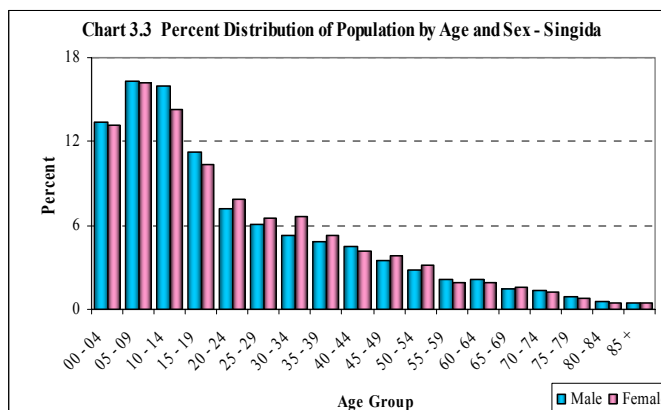


The percentage trend for six censuses/surveys years shows that there has not been any significant change in the distribution of agricultural households between male and female headed households.

3.1.4 Number and Age of Household

Members

Singida region had a total rural agricultural population of 936,792 of which 463,874 (49.5%) were males and 472,918 (50.5%) were females. Whereas age group 0-14 constituted 45 percent of the total rural agricultural population, age group 15–64 (active population) was only 51 percent. Singida region had an average household size of 5 with Iramba district having the highest household size of 6 whilst other districts had the regional average household size of 5 (Chart 3.3).



3.1.5 Level of Education

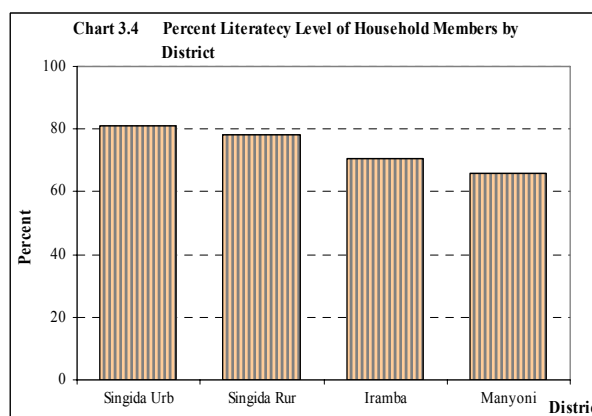
In order to obtain information on the level of education, information on literacy and education attainment were obtained for all persons aged five years and above in all households.

Literacy

The information on literacy level for family members aged five years and above was obtained by asking individual private households if their respective family members could read and write in Kiswahili only, English only, both English and Swahili or in any other language. Literacy is based on the ability to read and write Swahili, English or both.

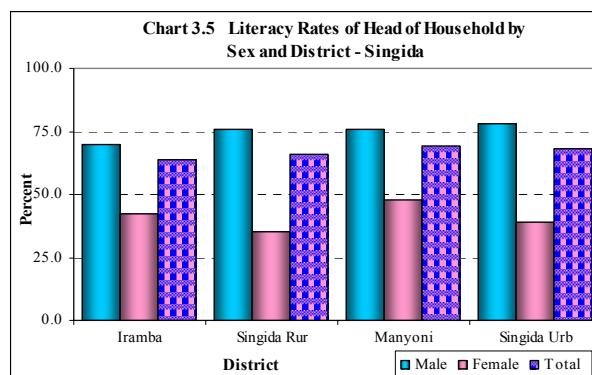
Literacy Level for Household Members

Singida region had a total literacy rate of 73 percent. The highest literacy rate was found in Singida Urban district (81%) followed by Singida Rural district (78%), Iramba district (71%) and Manyoni district (66%). (Chart 3.4).



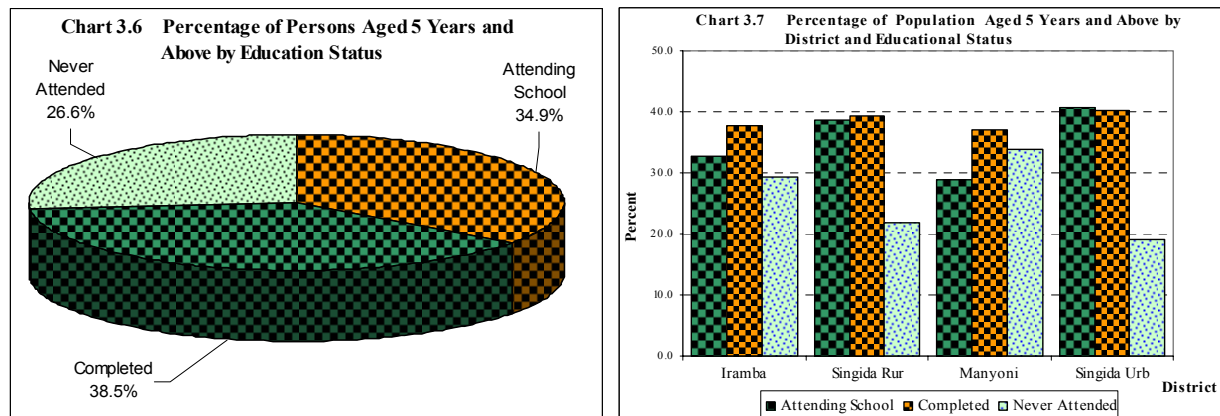
Literacy Rates for Heads of Households

The literacy rate for the heads of households in the region was 66.1 percent. The literacy rates among the male and female heads of households were 74 and 40 percent respectively. Male head of household literacy rate was higher than that of females in all districts. The district with the highest literacy rate amongst heads of households was Manyoni (69.3%) followed by Singida Urban (67.9%), Singida Rural (66.2%), and Iramba (64%) (Chart 3.5).



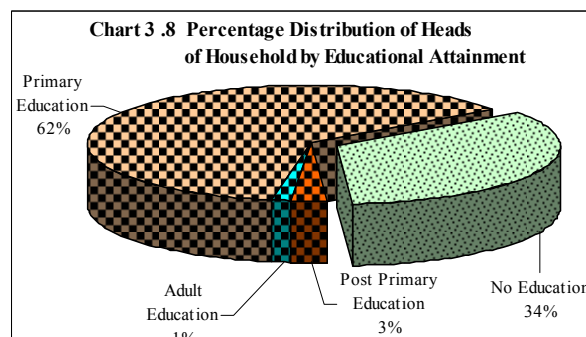
Educational Status

Information on educational status was collected from individual agricultural households. The results show that 38.5 percent of the population aged 5 years and above in agricultural households in the region had completed different levels of education and 34.9 percent were still attending school. Those who have never attended school were 26.6 percent (Chart 3.6).



Agricultural households in Singida Urban district had the highest percentage (40.3%) of population aged 5 years and above who had completed different levels of education. This was followed by Singida Rural (39.4%), Iramba (37.8%) and Manyoni (37.1%).

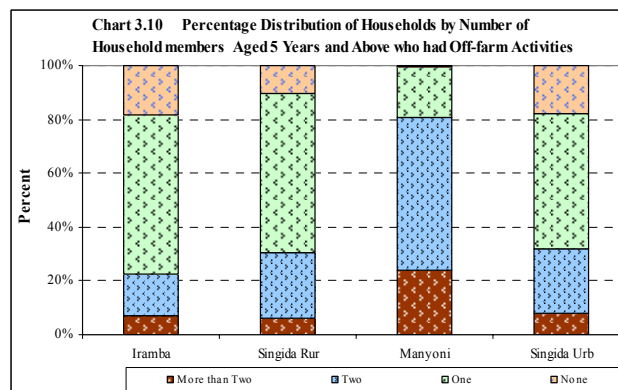
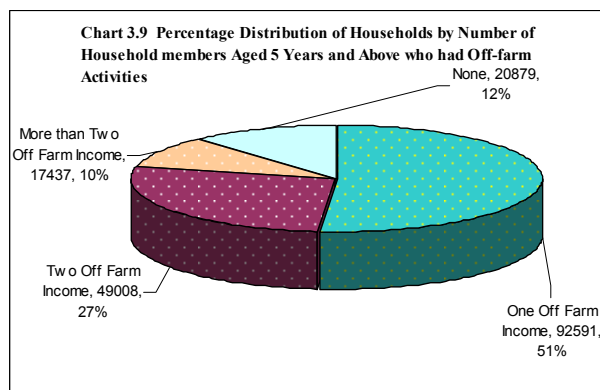
The number of heads of agricultural households with formal education in Singida region was 116,473 (65%), those without formal education were 63,442 (35%) and those with only adult education were 2,235 (1%). The majority of heads of agricultural households (62%) had primary level education whereas only 3 percent had post primary education.



With regard to the heads of agricultural households with primary or secondary education in Singida region, Singida Rural district had the highest percentages (40% for primary and 45% for secondary). This was followed by Iramba (34% primary and 29% secondary), Manyoni (19% primary and 18% secondary) and Singida Urban (6% primary and 8% secondary) (Chart 3.8).

3.1.6 Off-farm Income

Off-farm income refers to cash generated from non-agricultural activities. This can be either from permanent employment (i.e., government, private sector or other), temporary employment or labourers. It also includes cash generated from working on farms belonging to other farmers. Off-farm income is important amongst agriculture households in Singida with 88 percent of households having at least one member with off-farm income. In Singida region 92,591 households (51%) had only one member aged 5 and above involved in only one off-farm income generating activity, 49,008 households (27%) had two members involved in off-farm income generating activities and 17,437 households (10%) had more than two members involved in off-farm income generating activities.



Manyoni district had the highest percentage of agriculture households with off-farm income (over 99.5% of total agriculture households in the district). Other districts with high percent of agriculture households with off-farm income were Singida Rural (89.9%), Singida Urban (82.2%) and Iramba (81.9%). The district with the highest percentages of agriculture households with more than one member with off-farm income was Iramba (55%). Singida Rural district had very few households with more than one member having off-farm income (27%).

3.2 Land Use

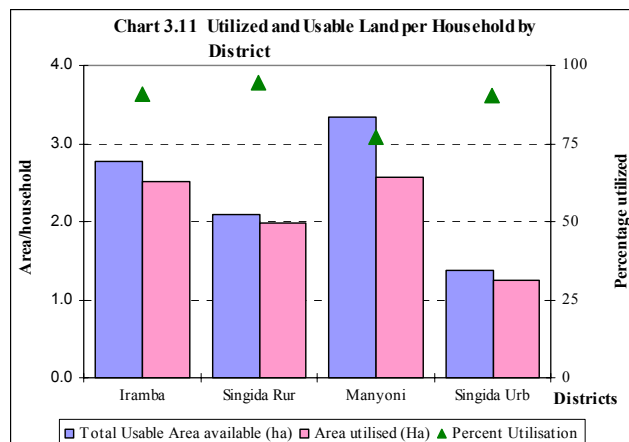
Land area and planted area are two different types of area measurements. Land area refers to the physical area of land and is the same regardless of the number of crops planted on the land in one year. Planted area is the total area of crops planted in a year and the area is summed if there were more than one crop on the same land per year. A number of terms are used in this section which requires defining for clarification as follows:

Land available refers to the area of land that has been allocated to smallholders through customary law, official title or other forms of ownership. Land available does NOT mean the total area of land that is designated as agriculture land in the country, however it is the land that is available to smallholders given the location of villages and lack of access to more remote parcels of unused agriculture designated land.

Usable land refers to the available land minus the land that cannot be used e.g. bare rock, shallow soils, steep slopes, swamp areas etc. It does however include un-cleared bush, Utilised land refers to the land that was used during the year.

3.2.1 Area of Land Utilised

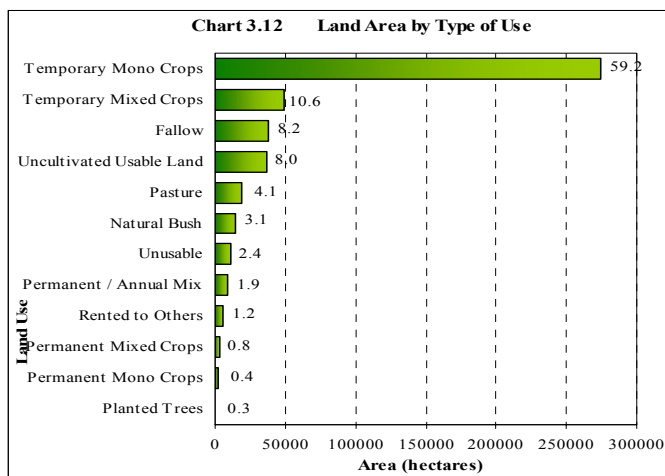
The total area of land available to smallholders was 463,150 ha. The Regional average land area utilised for agriculture per household was only 2.2 ha. This figure is higher than the national average which is estimated at 2.0 hectares. Eighty nine percent of the total land available to smallholders was utilised. Only 11 percent of usable land available to smallholders was not used (Chart 3.11).



Large differences in land area utilised per household exist between districts with Manyoni (2.6ha), Iramba ((2.5ha), Singida Rural (2.0ha) and Singida Urban (1.3ha). The percentage utilized of the usable land per household is highest in Singida Rural (94%) and lowest in Manyoni (77%). Eighty nine percent of the total land available to smallholders was utilised. Only 11 percent of usable land available to smallholders was not used (Chart 3.11 and Map.7).

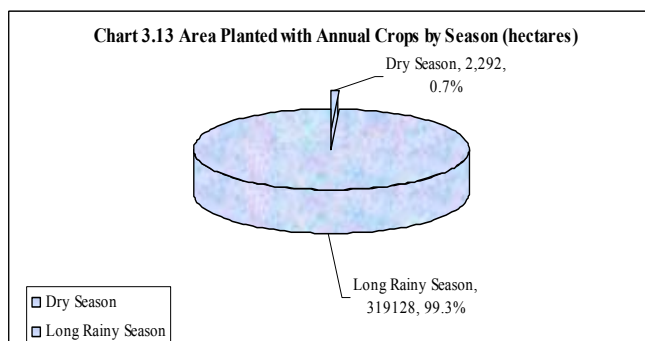
3.2.2 Types of Land Use

The area of land under temporary mono crop was 273,971 hectares (59.2% of the total land available to smallholders in Singida), followed by temporary mixed crop (48,992 ha, 10.6%), area under fallow (37,900 ha, 8.2%), uncultivated usable land (37,134 ha, 8.0%), area under pasture (18,758 ha, 4.0%), area under natural bush (14,301 ha, 3.1%), unusable area (11,246 ha, 2.4%), permanent/annual mix (8,782 ha, 1.9%), area rented to others (5,344 ha, 1.2%), area under permanent mixed crops (3,488 ha, 0.8%), area under permanent mono crops (2,026 ha, 0.4%) and area planed trees (1,209 ha, 0.3%).



3.3 Annual Crops and Vegetable Production

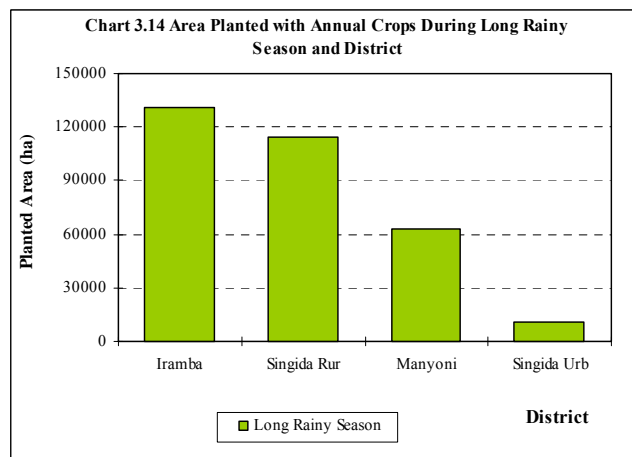
Singida region has one rainy season; however some crops were grown during the dry season of year by using irrigation/wet areas. A total of 2,292 ha were cultivated during dry season. The quantity of crops produced during the long rainy season will be used as a base for comparison with the past surveys and censuses.



3.3.1 Area Planted

The area planted with annual crops and vegetables was 321,419 hectares out of which 2,292 hectares (0.71%) were planted during dry season and 319,128 hectares (99.29%) during long rainy season. The average areas planted per household during the dry and long rainy seasons were 1.1 and 0.8 ha respectively (Chart 3.13). The district with the largest area planted per household (during long rainy season) were Iramba (0.9 ha) followed by Manyoni (0.8 ha), Singida Rural (0.7 ha) and Singida Urban (0.5 ha) (Chart 3.14 and Map.8).

The planted area occupied by cereals was 243,745 ha (76.4% of the total area planted with annuals). This was followed by oil seeds and oil nuts (52,843 hectares,

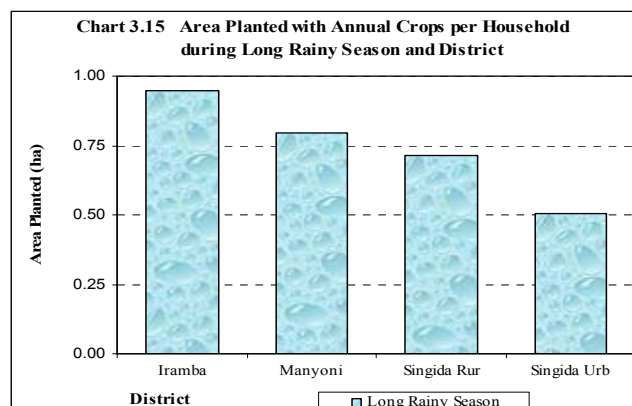


16.6%), pulses (13,342 hectares, 4.2%), roots and tubers (5,724 hectares, 1.8%), cash crops (2,226 hectares, 0.7%) and fruit and vegetables (1,249 hectares, 0.4%).

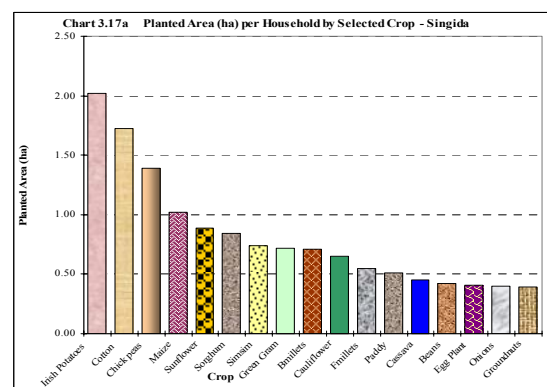
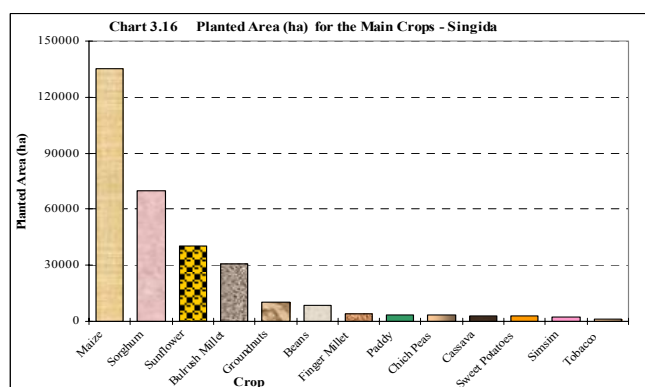
The average area planted per household during the long rainy season in Singida region was 1.8 hectares, however, there were large district differences. Iramba had the largest planted area per household (2.1 ha) followed by Manyoni (1.9 ha), Singida Rural (1.6 ha) and Singida Urban (1.0 ha) (Chart 3.15 and Map.9).

Analysis of the Most Important Crops

Results on crop production are presented in two different sections. The first section compares the importance of crops regardless of whether they are annual or permanent. The second section contains a more detailed analysis on production based on crop types.



3.3.2 Crop Importance



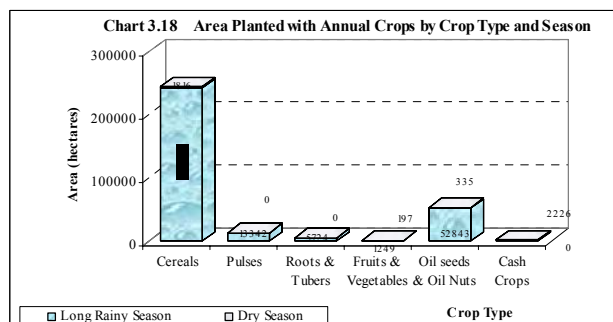
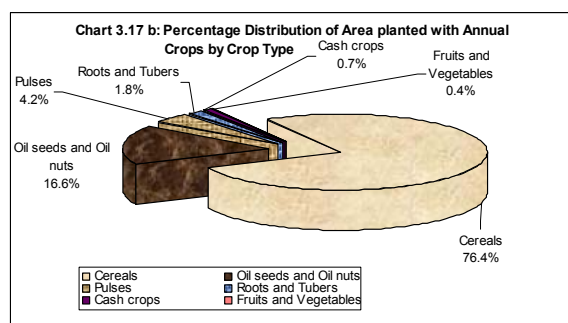
Maize is the dominant annual crop grown in Singida region and it had a planted area 2 times greater than Sorghum, which had the second largest planted area. The area planted with maize constitutes 43 percent of the total area planted with annual crops in the region. Other crops in order of their importance (based on area planted) are sorghum, sunflower, bulrush Millets, groundnuts and beans (Chart 3.16).

Chart 3.17 shows the area planted per household growing selected crops. Households that grow Irish potatoes, cotton and chick peas have larger planted areas per household than other crops (Chart 3.17a).

3.3.3 Crop Types

Cereals are the main crops grown in Singida region. The area planted with cereals was 243,745 ha (76.4% of the total planted area), followed by oil seeds and oil nuts with 52,843 ha (16.6%), pulses 13,342 ha (4.2%), roots and tubers 5,724 ha (1.8%), cash crops 2,226 ha (0.7%) and fruits and vegetables 1,249 ha (0.4%) (Chart 3.17b)

Cereals and oil seeds and oil nuts are the dominant crops in both seasons and other crop types are of minor importance in comparison. There is little difference in the proportions of the different crop types grown between seasons and because



dry season production was very small compared to long rainy season it is inappropriate to make detailed comparisons between the two seasons (Chart 3.18).

3.3.4 Cereal Crop Production

The total production of cereals was 89,468 tonnes. Maize was the dominant cereal crop at 54,396 tonnes which was 61 percent of total cereal crops produced, followed by sorghum

Table 3.2: Area, Production and Yield of Cereal Crops by Season

Crop	Dry Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tonnes)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tonnes)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Maize	1,795	340	190	135,482	54,056	399	137,277	54,396	396
Sorghum	21	11	533	69,884	21,692	310	69,905	21,703	310
Bulrush millets	0	0	0	30,783	10,025	326	30,783	10,025	326
Finger Millet	0	0	0	3,901	1,357	348	3,901	1,357	348
Paddy	0	0	0	3,665	1,973	538	3,665	1,973	538
Wheat	0	0	0	29	14	483	29	14	483
Total	1,816	351		243,744	89,117		245,560	89,468	

(24%), bulrush millets (11%), paddy (2.2%), finger millets (1.5%) and wheat (0.02%) (Map. 10)

The total area planted with cereals during the dry and long rainy seasons was 245,560 ha out of which 1,816 ha (0.7%) were planted in dry season and 243,744 ha (99.3%) were planted during the long rainy season. The long rainy season accounts for 99.6 percent of the total cereals produced in both seasons. The area planted with maize during the dry season was 98.8 percent of the total area planted with cereals in that season followed by sorghum (1.2%) (Table 3.2)

The area planted with maize was large and it represented 55.9 percent of the total area planted with cereal crops, followed by sorghum (28.5%), bulrush millets (12.5%), finger millets (1.6%) and paddy (1.5%).

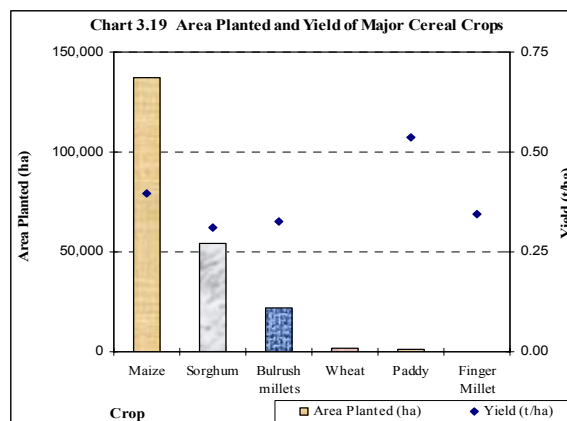
The yield of paddy was 538 kg/ha, followed by wheat (483 kg/ha), maize (396 kg/ha), finger millets (348 kg/ha), bulrush millets (326 kg/ha and sorghum (310 kg/ha) (Chart 3.19).

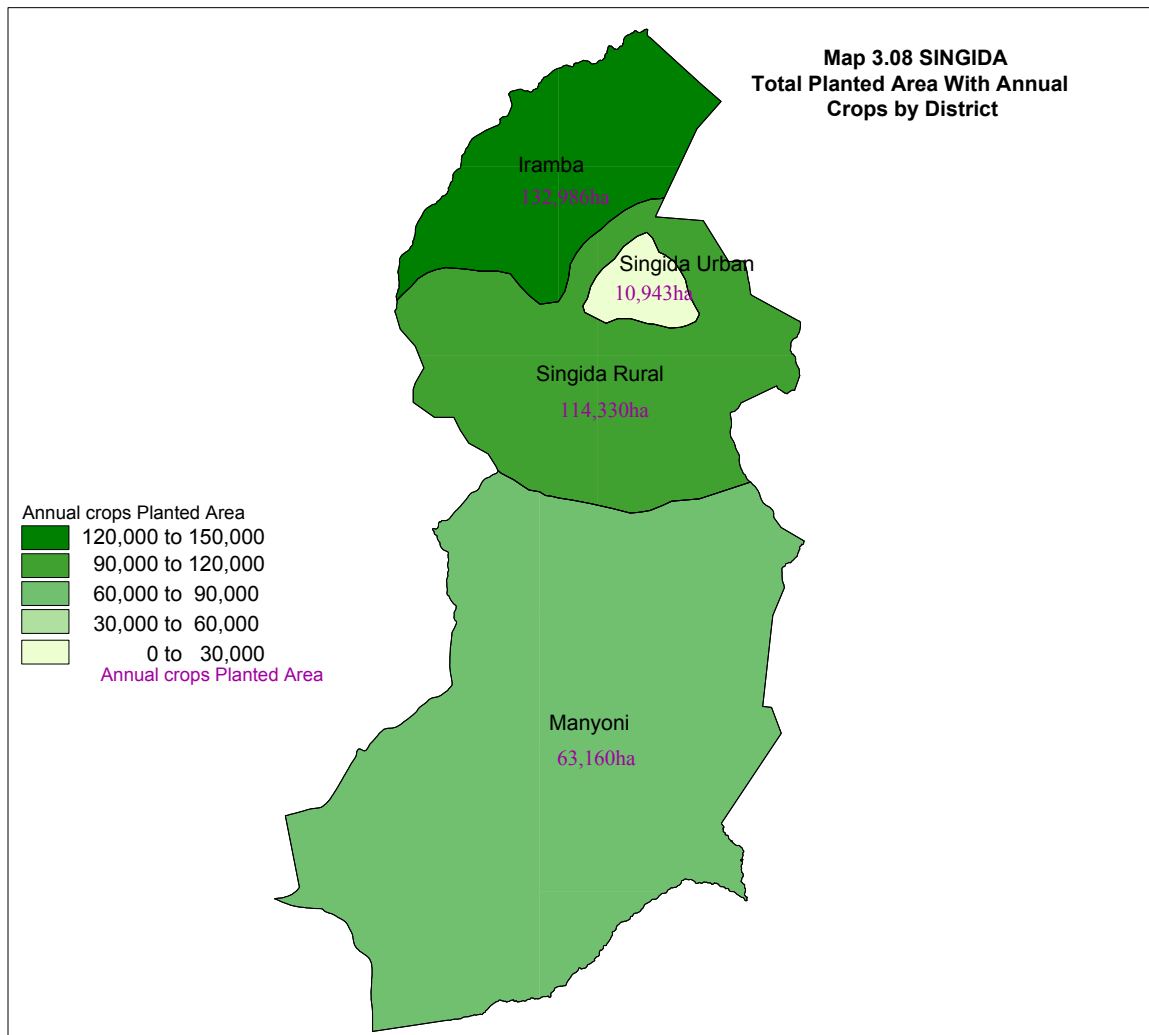
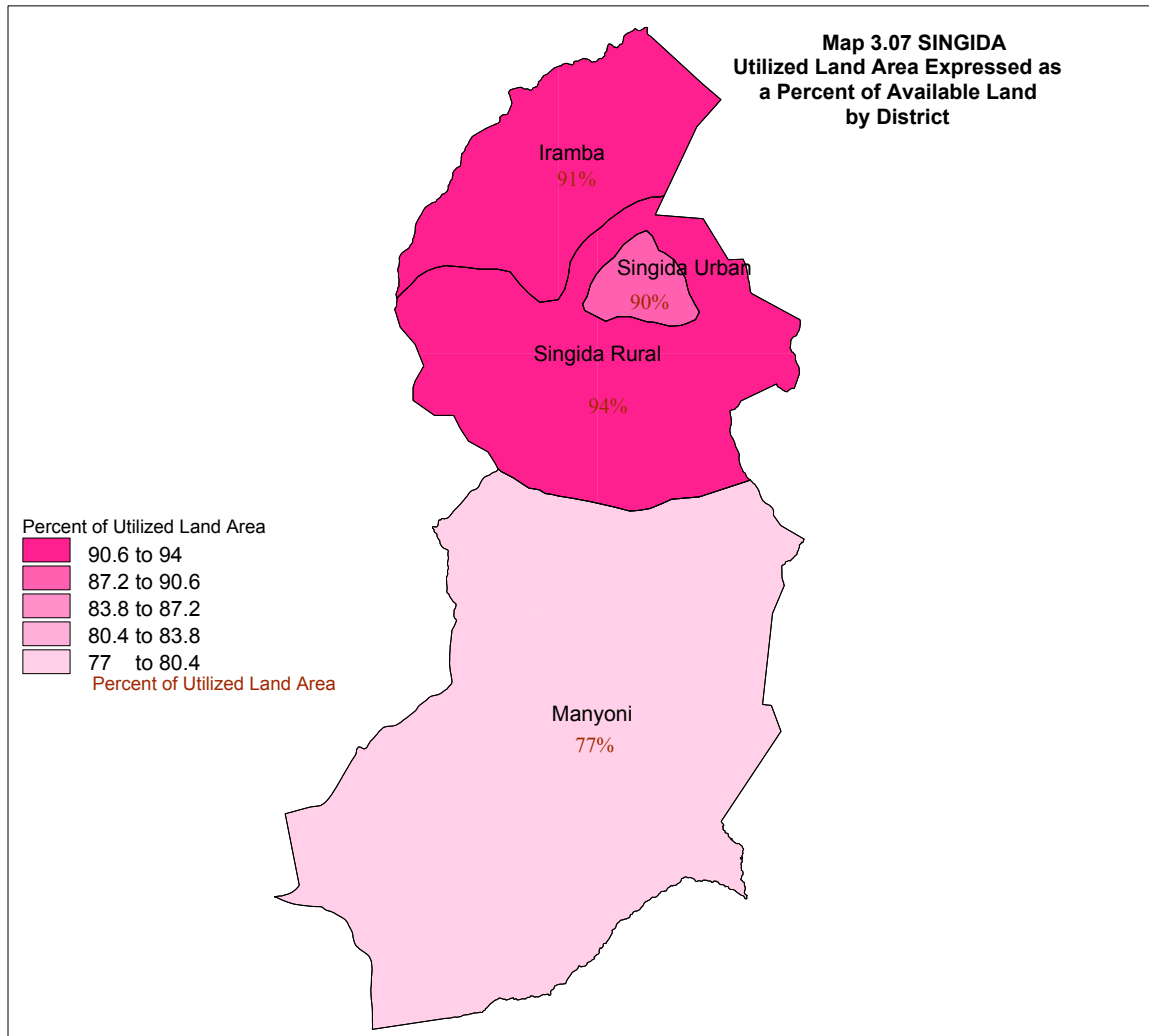
3.3.4.1 Maize

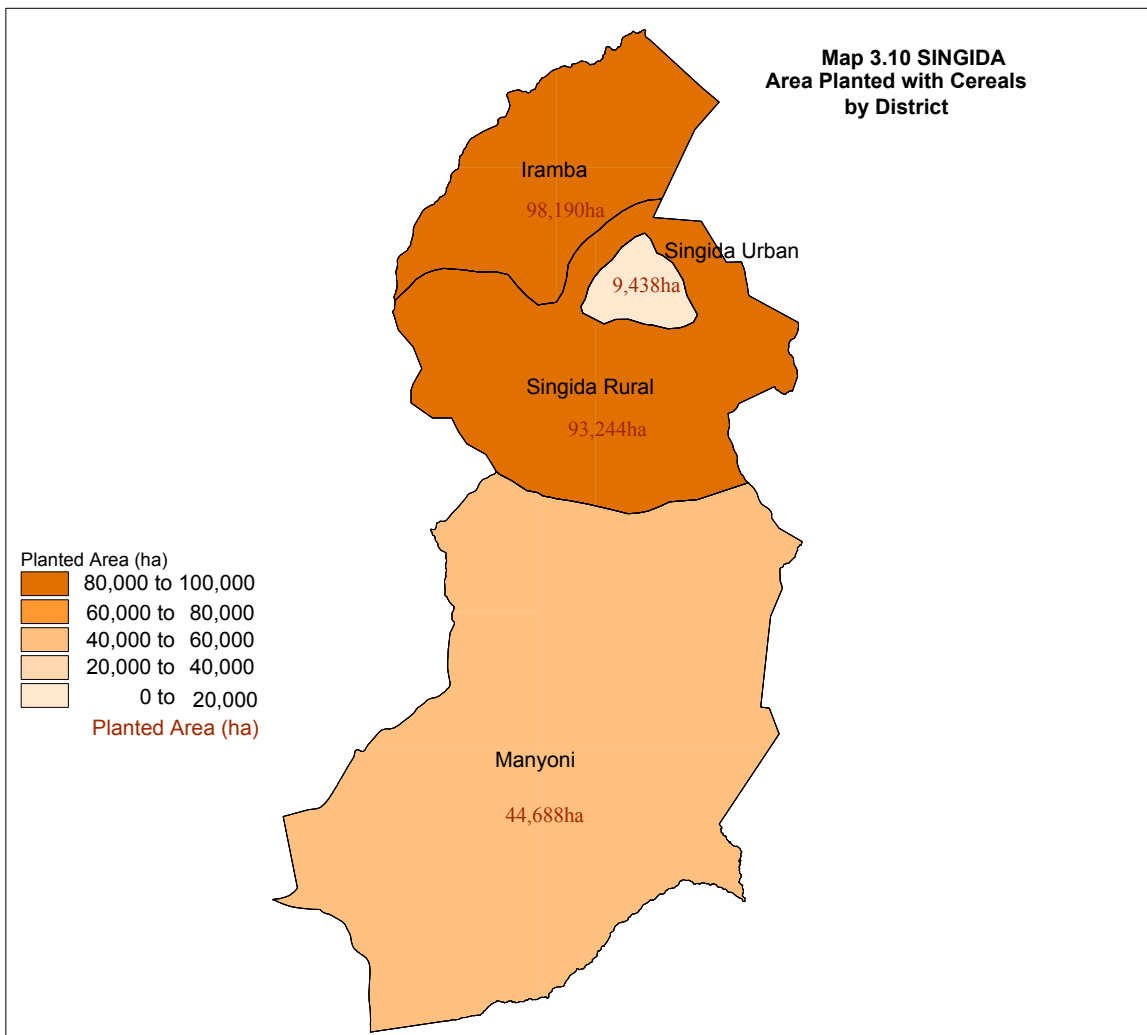
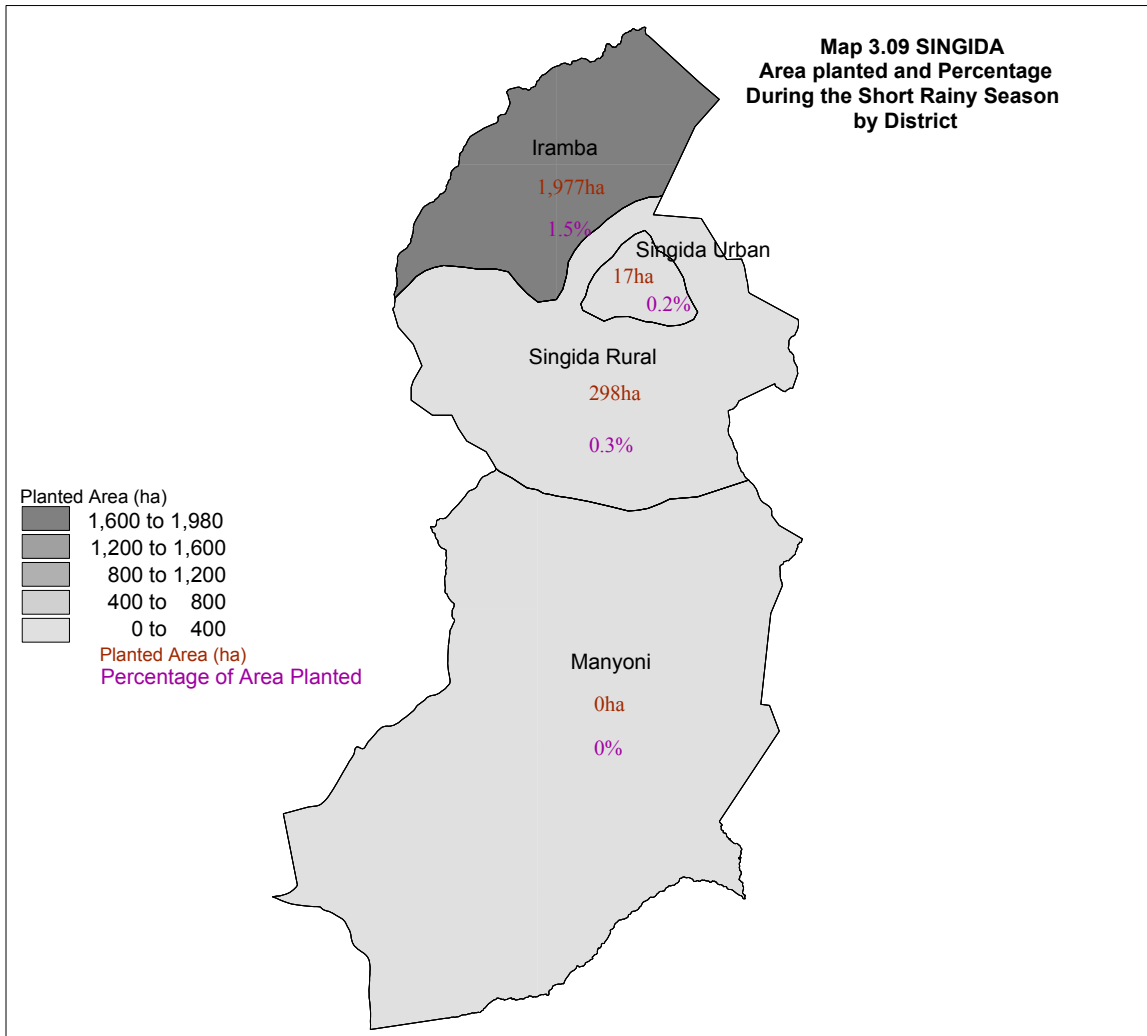
Maize dominates the production of cereal crops in the region.

The number of households growing maize in Singida region

during the long rainy season was 132,667, (74% of the total crop growing households in the region during the long rainy

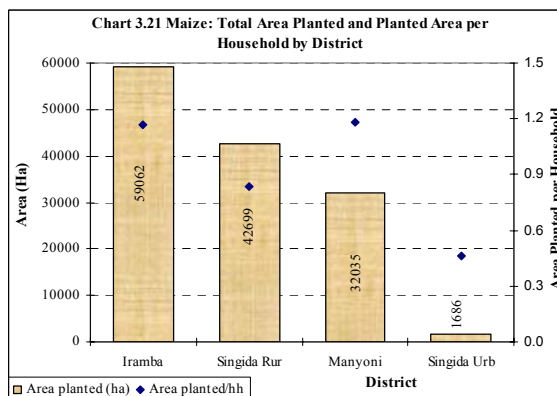
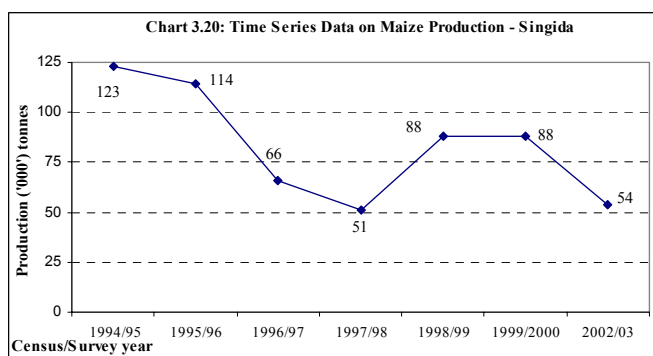




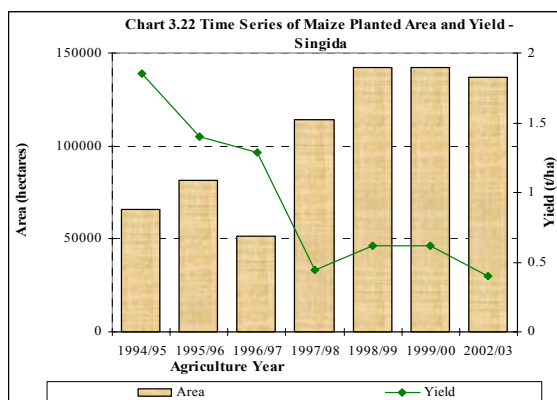


season). The total production of maize was 54,056 tonnes from a planted area of 135,482 hectares resulting in a yield of 0.4 t/ha.

Chart 3.20 indicates maize production trend (in thousand metric tonnes) for the long rainy season. There was an increase in maize production 73% over the period of 1997 to 1999 after which the production remained constant until 2000. The average area planted with maize per household was 1.0 hectares however it ranged from 0.5 hectares in Singida Urban district to 1.2 hectares in Manyoni district. Iramba district had the largest area of maize (59,062 ha) followed by Singida Rural (42,699 ha), Manyoni (32,035 ha) and Singida Urban (1,686 ha). (Chart 3.21, Map 3.11 and map 3.12)

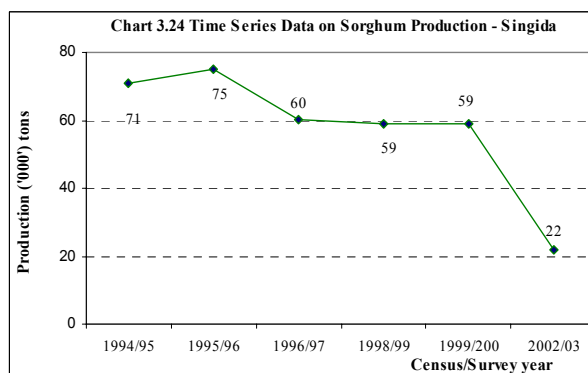
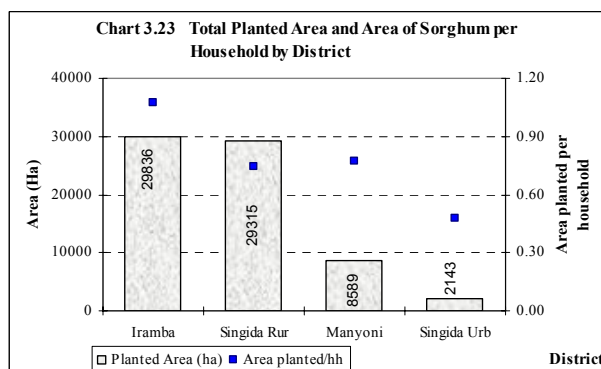


Charts 3.20 and 3.22 show that, whilst the yield of maize has dropped over the previous 7 years, the quantity produced has increased and this has been due to a large increase in the area under production. The area planted with maize remained constant over the period from 1994 to 1996 after which the area under production expanded gradually until 1999 and the area has remained constant ever since. However, the yield of maize has shown a gradual decline over the period 1995 to 1998 after which the yield remained almost steady to year 2002 then the yield dropped in 2003 (Chart 3.22).

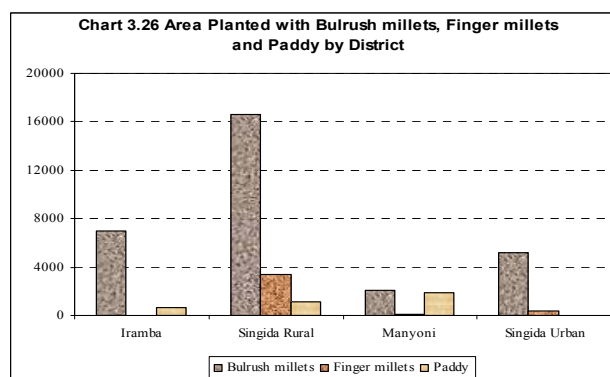
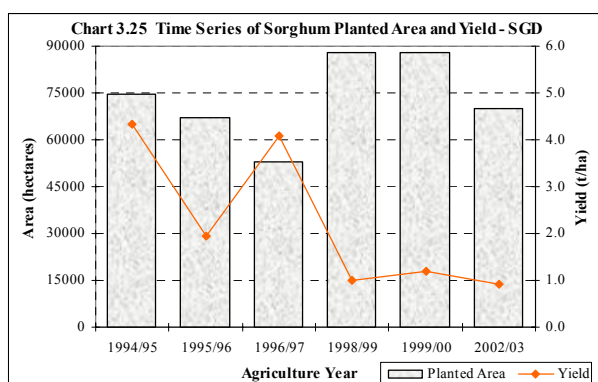


3.3.4.2 Sorghum

Sorghum is the second most important cereal crop in the region in terms of planted area. The number of households that grew sorghum in Singida region during the long rainy season was 82,809. This represents 46 percent of the total crop growing households in Singida region in the long rainy season. The total production of sorghum was 21692 tonnes from a



planted area of 69,884 hectares resulting in a yield of 0.31 t/ha. The district with the largest area planted with sorghum was Iramba (29,836 ha) followed by Singida Rural (29,315 ha), Manyoni (8,589 ha) and Singida Urban (2,143 ha) (Map 3.13) There are significant variations in the average area planted per crop growing household among the districts ranging from 0.5 ha in Singida Urban district to 1.1 ha in Iramba district (Chart 3.23 and Map 3.14).

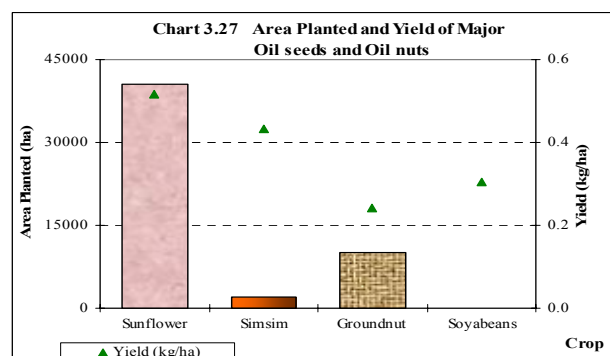


There was a decreasing trend in the production of sorghum in 1995/96 to 2002/03. The production was almost steady from 1997 to 2000 at around 60,000 tonnes after which it dropped to 22,000 tonnes in the following year.

Charts 3.24 and 3.25 shows that the yield and production of sorghum has dropped dramatically over the previous 7 years and the planted area decreased from 74,604 hectares in 1995 to 52,748 hectares in 1997, there after the area increased to 87,715 hectares in 2000 and then dropped to 69,905 hectares in 2003. The area planted with sorghum remained constant from 1999 to 2000 after which the area under production declined until 2003 (Chart 3.25).

3.3.4.3 Other Cereals

Other cereals produced include bulrush millet, finger millet and paddy. Bulrush millets is produced in Singida Rural (16,562 ha), Iramba (6,949 ha), Singida Urban (5,156 ha) and Manyoni district (2,116 ha). Finger millet is produced in Singida Rural (3,428 ha), Singida Urban (399 ha) and Manyoni (75 ha). Paddy is produced in Manyoni (1,873 ha), Singida Rural (1,140 ha), Iramba (615 ha) and Singida Urban (39 ha) (Chart 3.26).

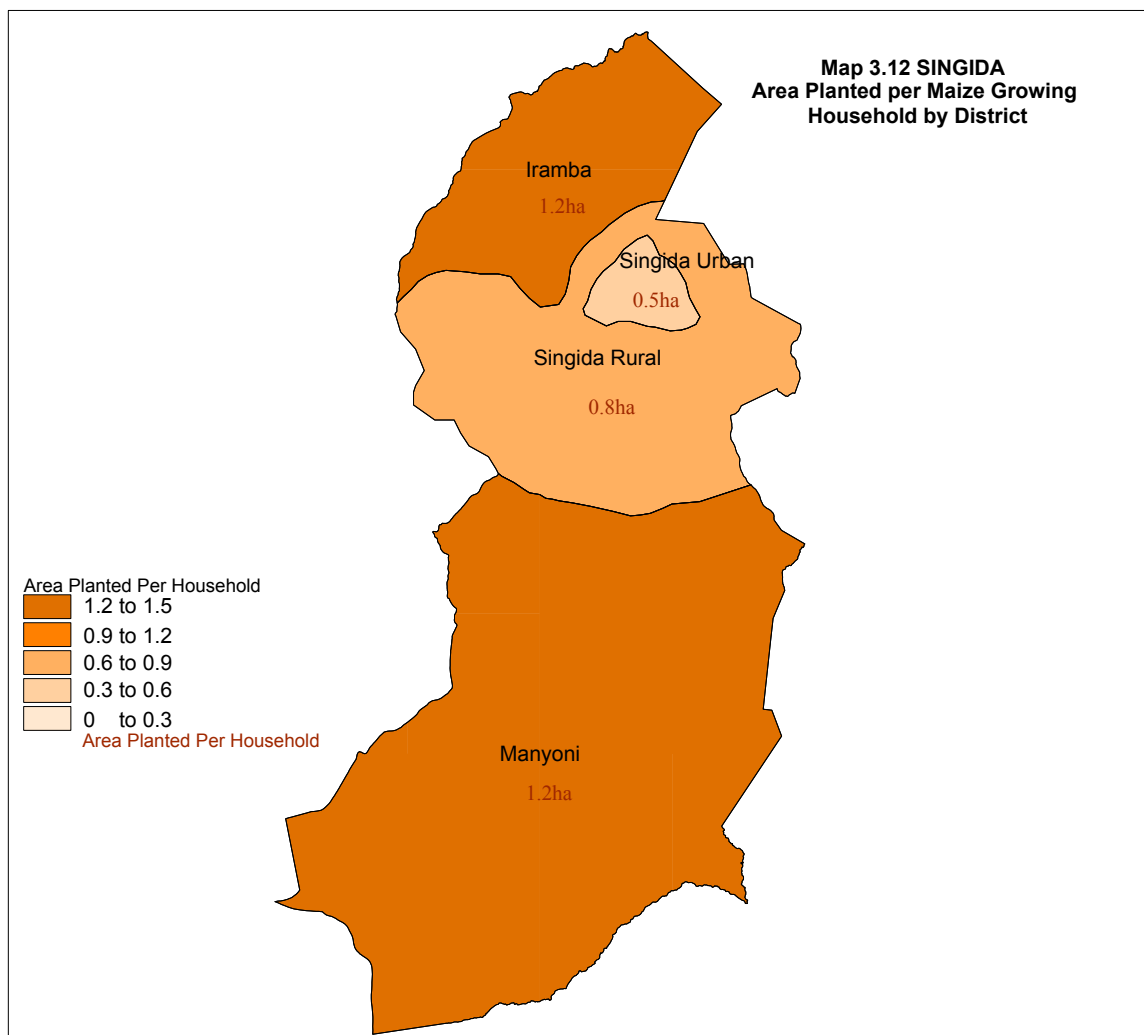
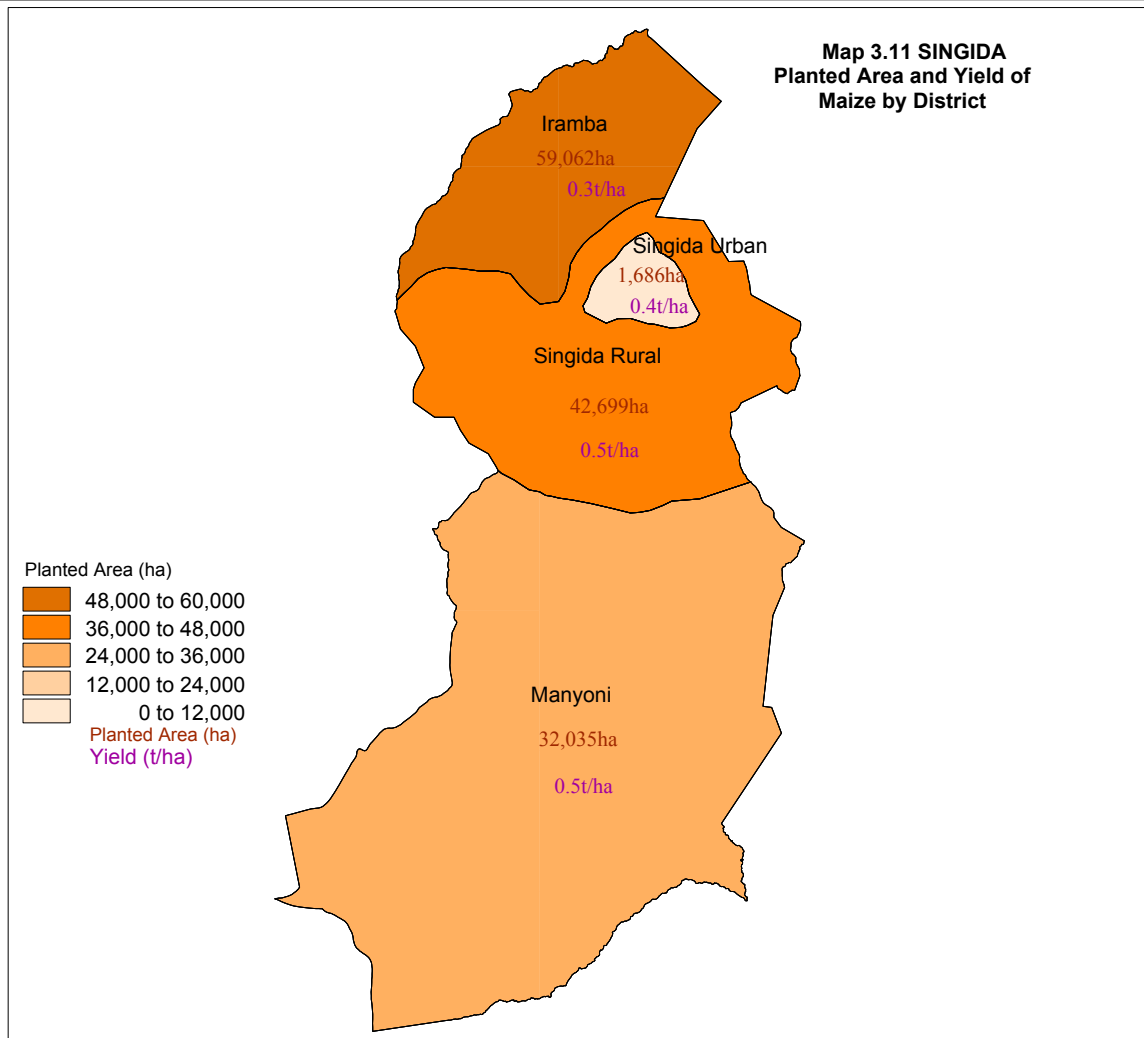


3.3.5 Oil seeds and Oil nuts Production

The total production of oil seeds and oil nuts during the long rainy season was 24,367 tonnes. Sunflower production was higher than any other oil seed and oil nut crop in the region with a total production of 21,002 tonnes representing 86 percent of the total oil seeds and oil nuts production. This was followed by groundnut with 2,462 tonnes (10%), simsim (887 tonnes (4%) and soya beans 17 tonnes (0.1%) (Table 3.3)

Table 3.3: Area, Production and Yield of Oil seeds and Oil nuts by Season

Crop	Dry Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Sunflower	279	335	1,201	40,590	21,002	517	40,728	21,281	522
Simsim	0	0	0	2,053	887	432	2,053	887	432
Groundnuts	0	0	0	10,146	2,462	243	25,662	10,146	243
Soyabeans	0	0	0	55	17	329	167	55	309
TOTAL	279	335	1,201	52,844	24,368	517	53,123	24,703	462



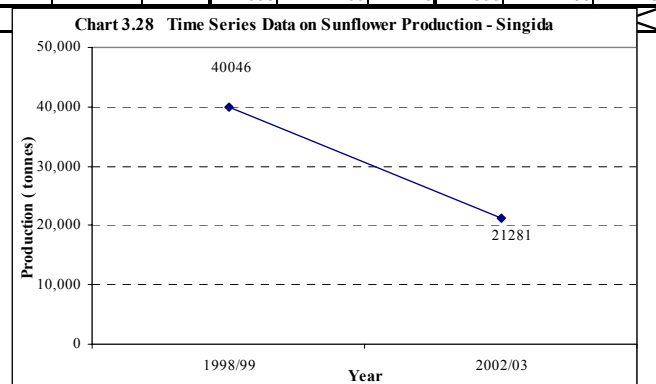
The area planted with sunflower was larger than any other oil seeds and oil nuts (12.7% of the total area planted with annual crops and vegetables) and it accounted for 77 percent of the area planted with oil seeds and oil nuts, followed by groundnuts (19%), simsim (4%) and soya beans (0.1%).

Table 3.4: Area, Production and Yield of Pulses by Season

Crop	Dry Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Mung Beans	0	0	0	2	9	4500	2	9	4500
Beans	0	0	0	8328	1645	198	8328	1645	198
Cowpeas	0	0	0	943	299	317	943	299	317
Green Gram	0	0	0	174	75	431	174	75	431
Chick Peas	0	0	0	3201	1624	507	3201	1624	507
Bambaranuts	0	0	0	695	169	243	695	169	243
TOTAL									

3.3.5.1 Sunflower

The number of households growing sunflower in Singida region was 45,857. The total production of sunflower in the region was 21,337 tonnes from a planted area of 40,869 hectares resulting in a yield of 0.5 t/ha.

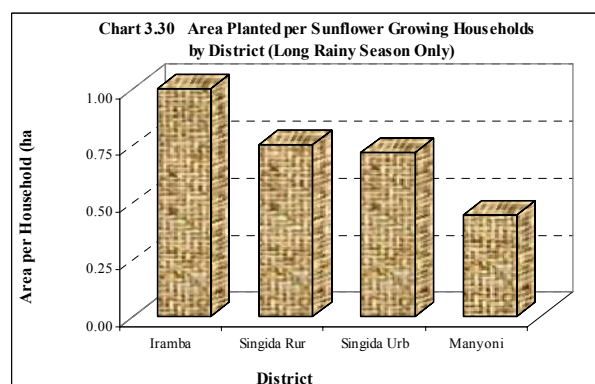
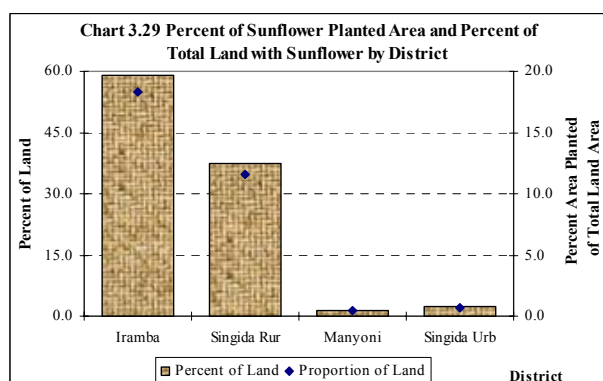


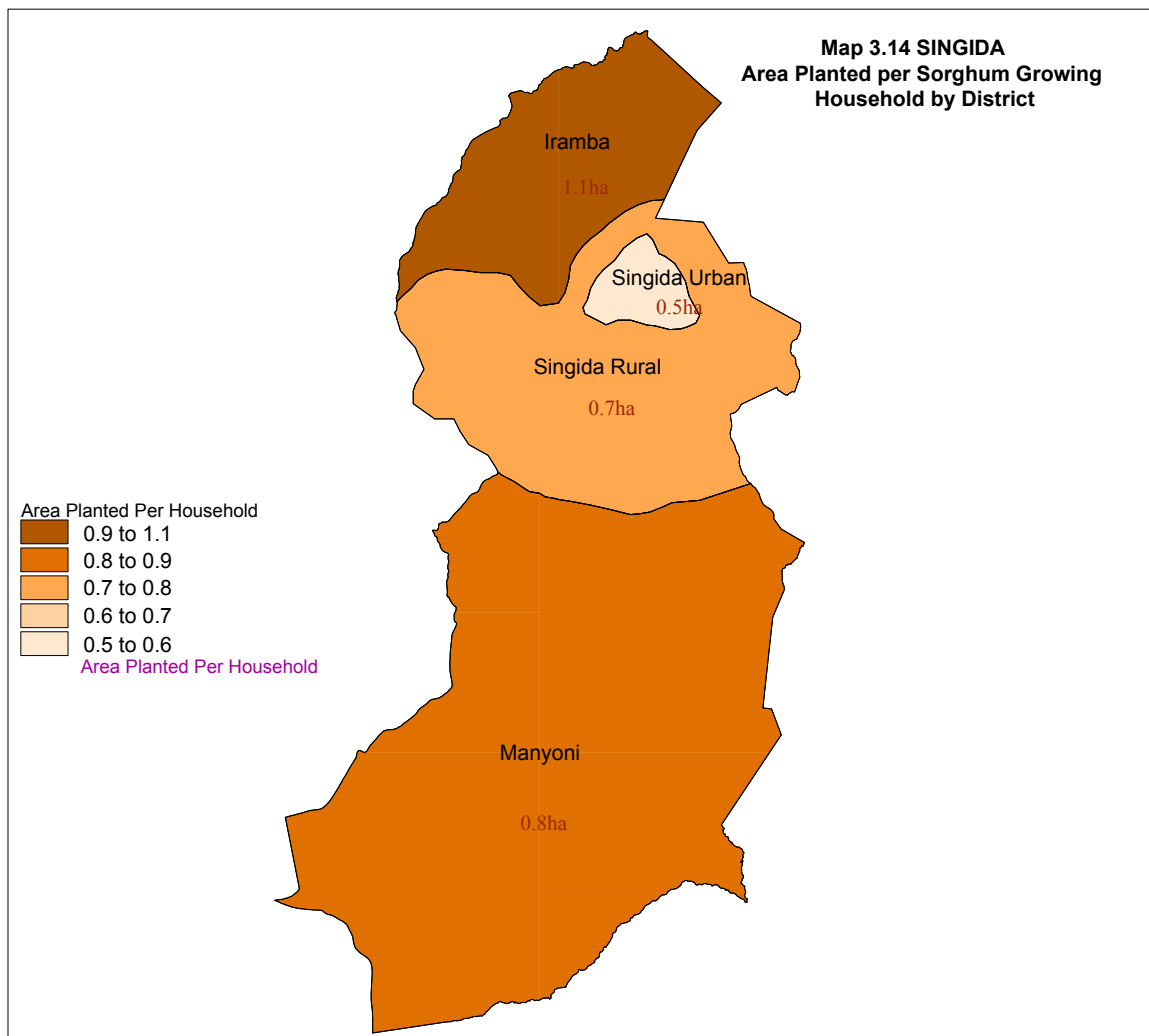
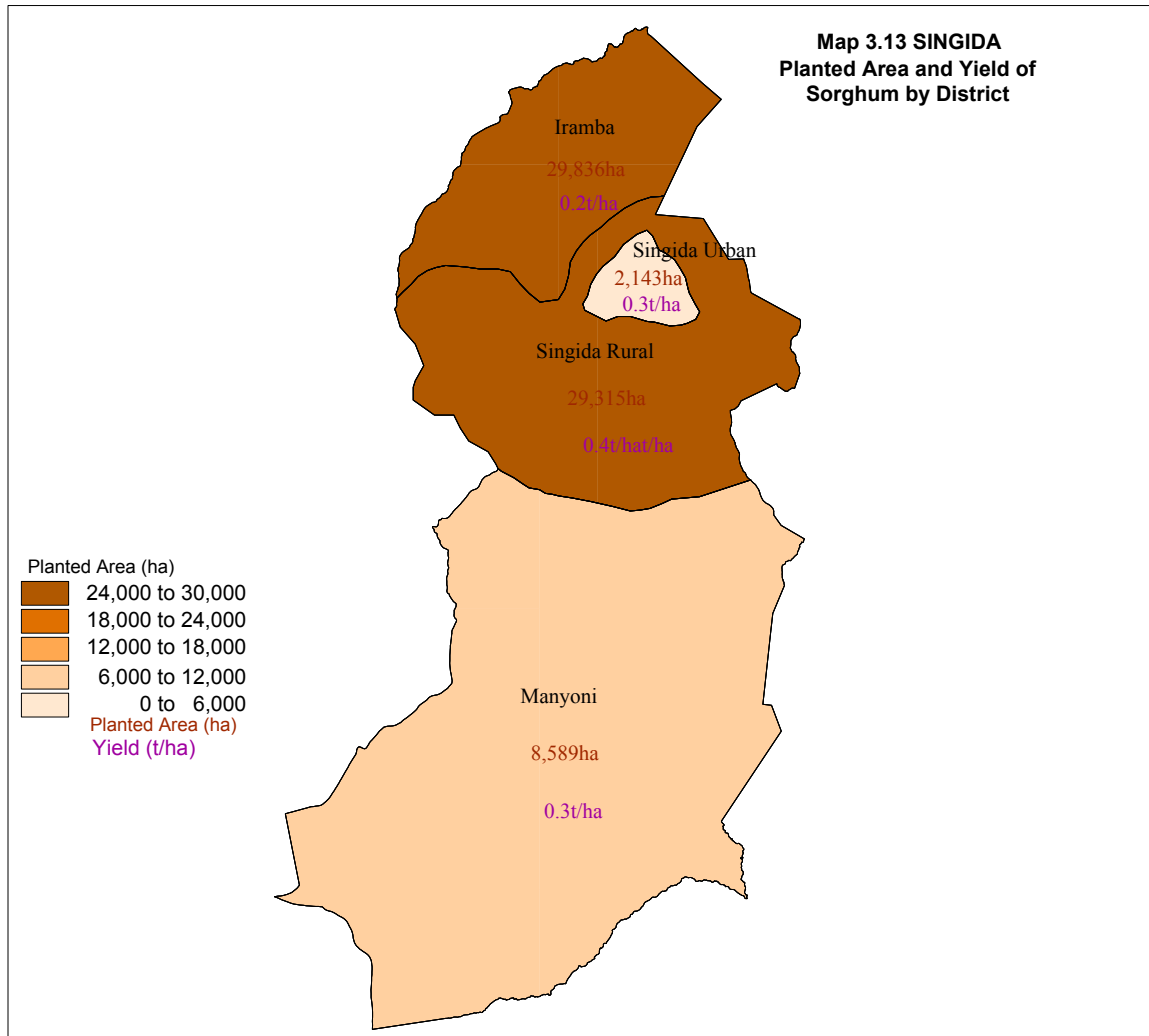
There has been a large decrease in production of sunflower over the period 1998/99 to 2002/03, from 40,046 tonnes in 1998/99 to 21,281 tonnes in 2002/03.

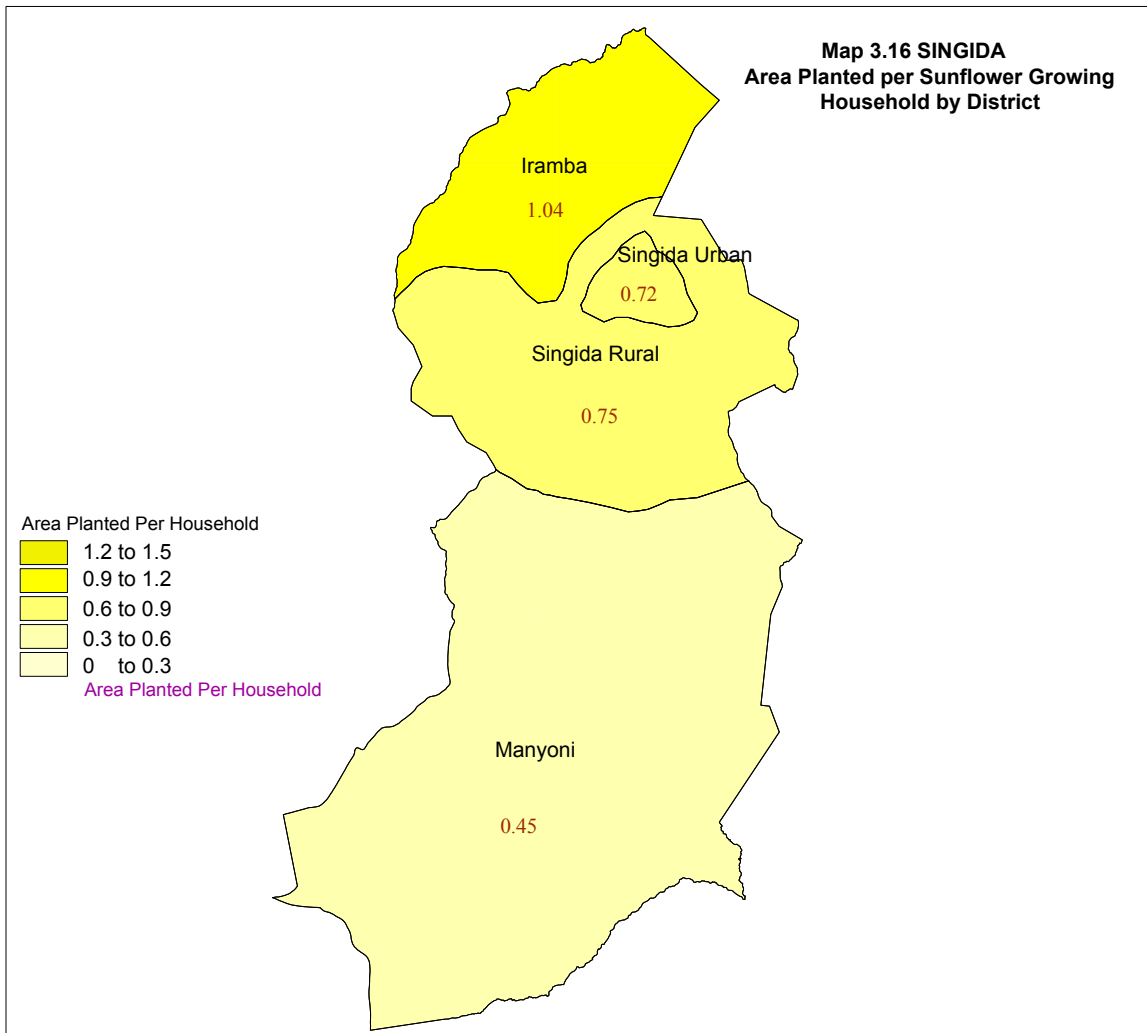
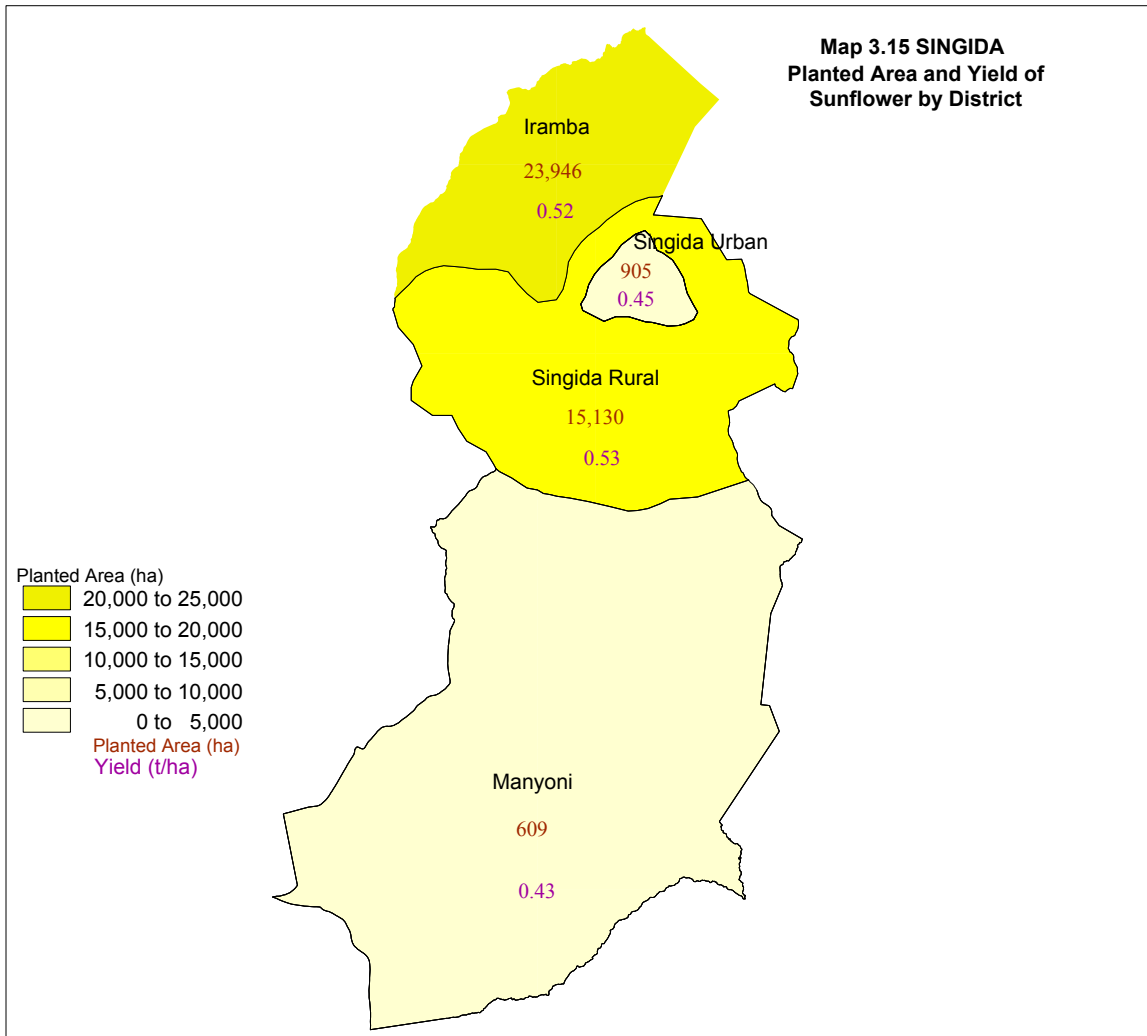
Area planted increased from 32,495 hectares in 1998/99 to 40,590 hectares in 2002/03 (Chart 3.28)

Fifty nine percent of the area planted with sunflower was located in Iramba district (23,946 ha) followed by Singida Rural (15,130 ha, 37%), Singida Urban (408 ha, 2.2%) and Manyoni (262 ha, 1.5%). The highest proportion of land with sunflower was found in Singida Urban followed by Singida Rural, Iramba and Manyoni (Chart 3.29 and Map 3.15).

The largest area planted per sunflower growing household was found in Iramba district (1.04 ha) and the lowest was in Manyoni (0.45). The range between the district with the highest and the lowest area planted per household depicts small variations in area planted among the districts (Chart 3.30 and Map 3.16).

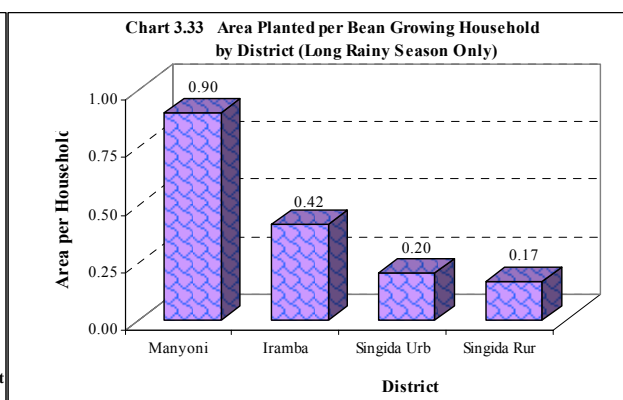
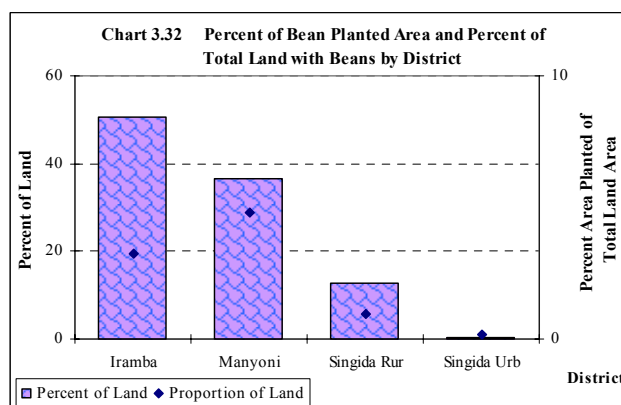
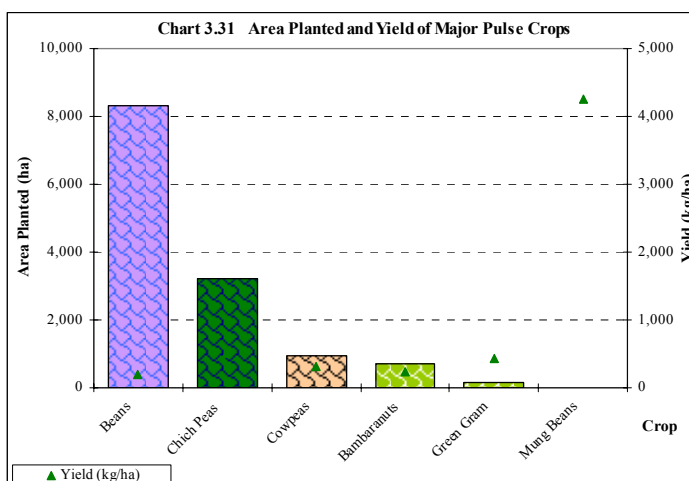






3.3.6 Pulse Crops Production

The total area planted with pulses was 13,343 hectares out of which 8,328 ha were planted with beans (62.4 percent of the total area planted with pulses), followed by chick peas (3,201 ha, 24.0%), cow peas (943 ha, 7.1%) bambaranuts 695 ha, (5.2%) and green gram (174 ha, 1.3%). pigeon peas, field peas and soya beans were not cultivated in the region.

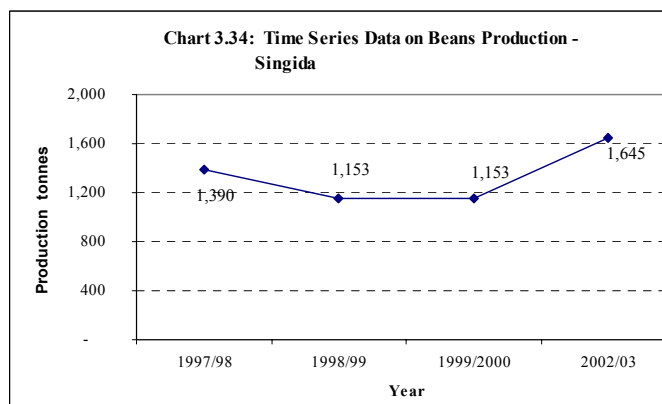


The total production of pulses was 3,821 tonnes. Beans were the most cultivated crop producing 1,645 tonnes which accounted for 43.1 percent of the total pulse production. This was followed by chick peas (1624t, 42.5%), cow peas (299t, 7.8%), bambaranuts (169t, 4.4%), green gram (75t, 2.0%) and mung beans (9t, 0.2%). Mung beans and chick peas had relatively higher yields of 4,500 and 507 kgs/ha respectively. The yields of the rest of the pulses in kilograms per hectare were green gram 431 kgs/ha, cowpeas 317 kgs/ha and beans 198 kgs/ha. (Chart 3,32).

3.3.6.1 Beans

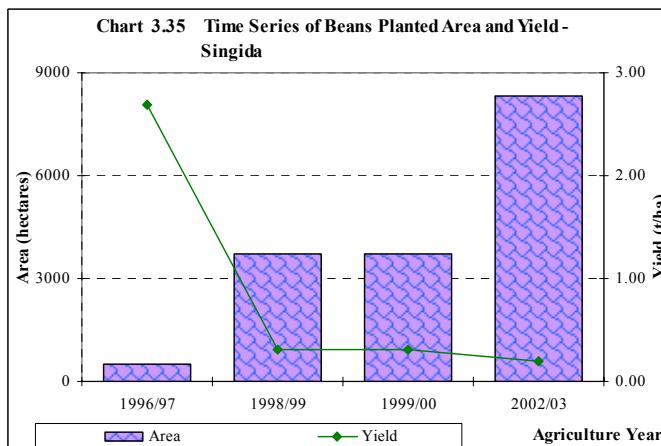
Beans dominated the production of pulse crops in the region. The number of households growing beans in Singida region was 19,913. The total production of beans in the region was 1,645 tonnes from a planted area of 8,328 hectares resulting in a yield of 0.2 t/ha.

The largest area planted with beans in the region was in Iramba (4,209 ha, 50.5%) (Chart 3.32 and Map 3.17), however, the largest area planted with beans per household was in Manyoni district (0.5 ha) (Chart 3.33), followed by Iramba district (0.4 ha), Singida Rural (0.3) and Singida Urban (0.2 ha). The average area planted per household in the region during the long rainy season was 0.4 ha (Map 3.18).



In Singida region, bean production has increased from 1,390 tonnes in 1997/98 to 1,645 tonnes in 2002/03 (Chart 3.34).

Charts 3.35 and 3.36 show that, the yield of beans was high in 1996/96 (2.7 t/ha), Over the period 1998/99 to 1999/00 the yield of beans remained constant at around 0.3 t/ha (Chart 3.35). The quantity produced has increased and this has been due to a large increase in the area under production. The area planted with beans has increased erratically over the period from 1996 to 2003.



3.3.7 Roots and Tuber Crops Production

The total production of roots and tubers was 5,597 tonnes. Sweet potatoes production was higher than any other root and tuber crop in the region with a total production of 2,807 tonnes representing 50.1 percent of the total root and tuber crops production. This was followed by cassava with 2,424 tonnes (43.3%), Irish potatoes (364t, 6.5%) and yams (2t, 0.04%).

(Table 3.5). The area planted

with cassava was larger than any other root and tuber crops and it accounted for 52.3 percent of the area planted with roots and tubers, followed by sweet potatoes (44.8%), Irish potatoes (2.8% and yams (0.1%).

The yield was high for Irish potatoes (2.3 t/ha) and sweet potatoes (1.1 t/ha), followed by cassava (0.8 t/ha) and yams (0.7 t/ha).

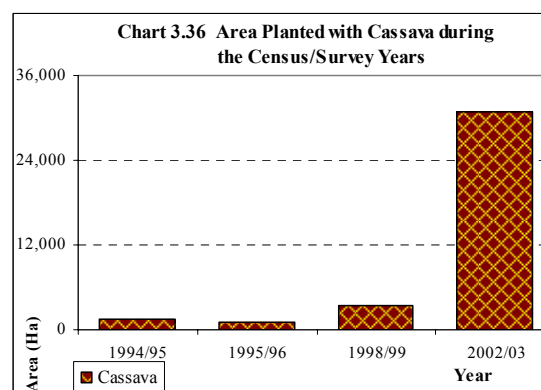
3.3.7.1 Cassava

The number of households growing cassava in the region was 6,610. This represents 3.7 percent of the total crop growing households in the region. The total production of cassava during the census year was 2,424 tonnes from a planted area of 2,995 hectares resulting in a yield of 0.8t/ha.

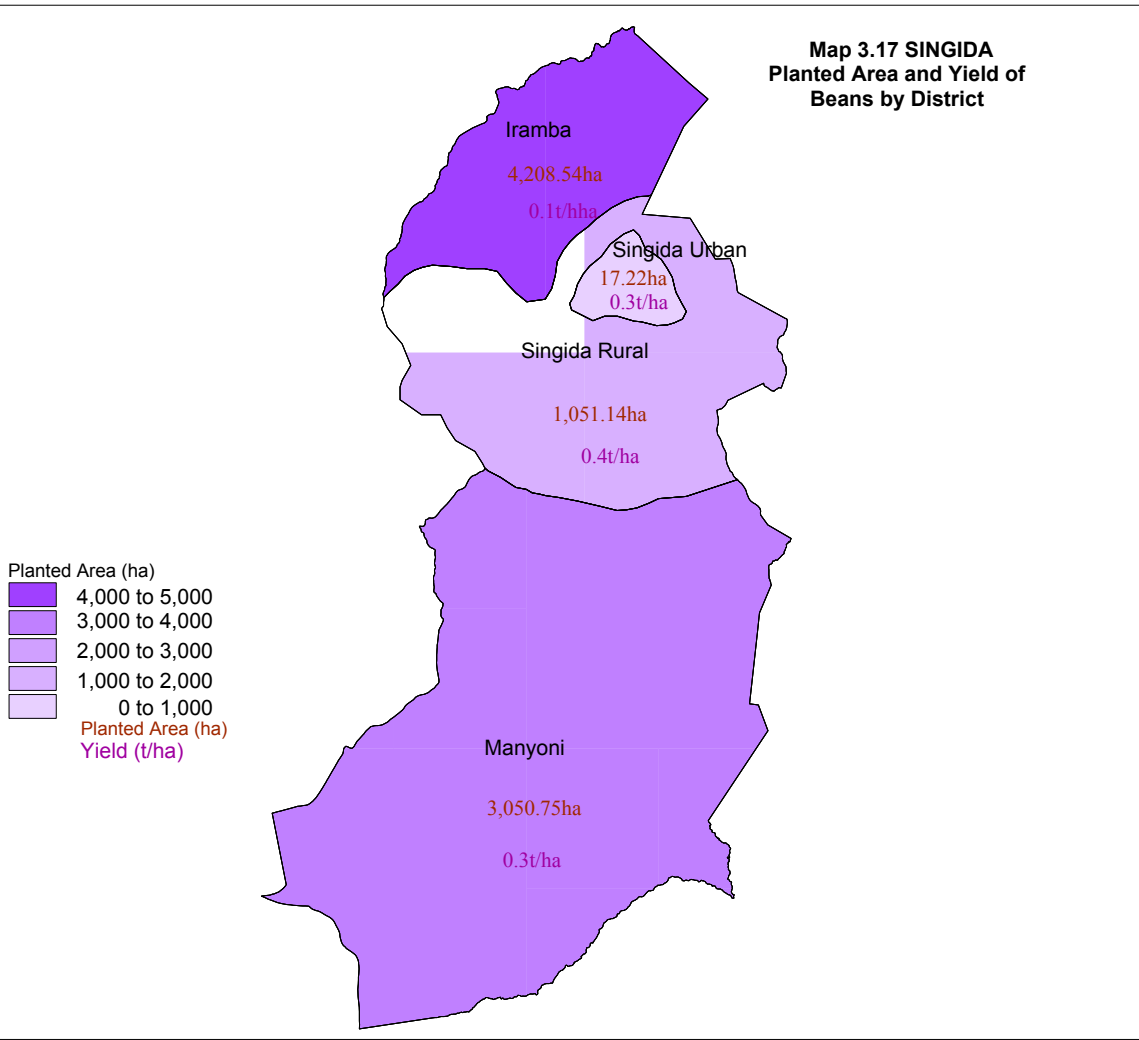
Table 3.5: Area, Production and Yield of Root and Tuber Crops by Season

Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Cassava	0	0	0	2995	2424	809	2995	2424	809
Sweet Potatoes	0	0	0	2564	2807	1095	2564	2807	1095
Irish Potatoes	0	0	0	161	364	2261	161	364	2261
Yams	0	0	0	3	2	667	3	2	667
Cocoyam	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	5,724	5,597	0	5,724	5,597	0

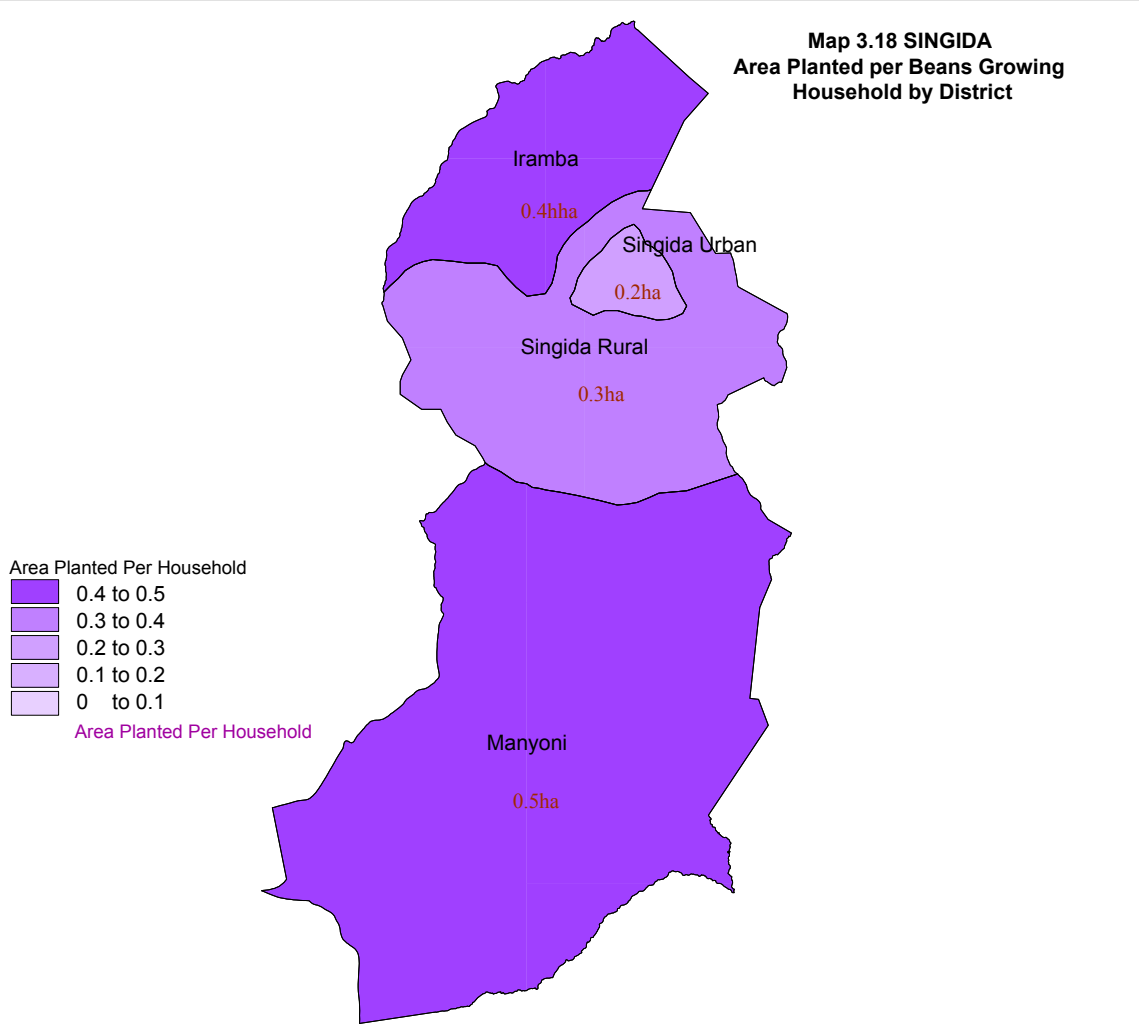
Note: Cassava is produced in both the long and short rainy season. However, it was not possible to separate cassava production in the different growing seasons as the growth period spans both seasons and even over a year in certain varieties. Because of this, cassava has been combined and is reported in the long rainy season only.

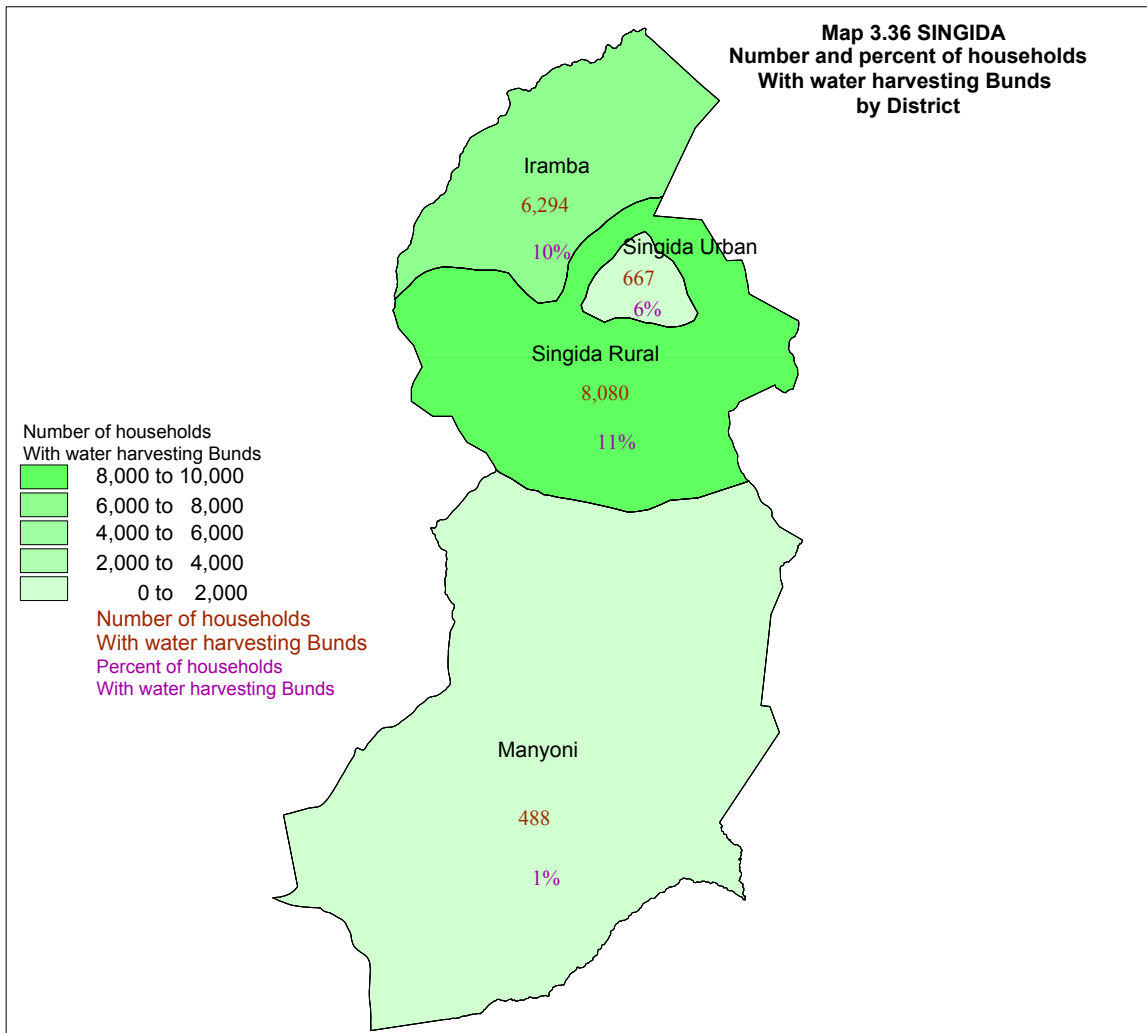
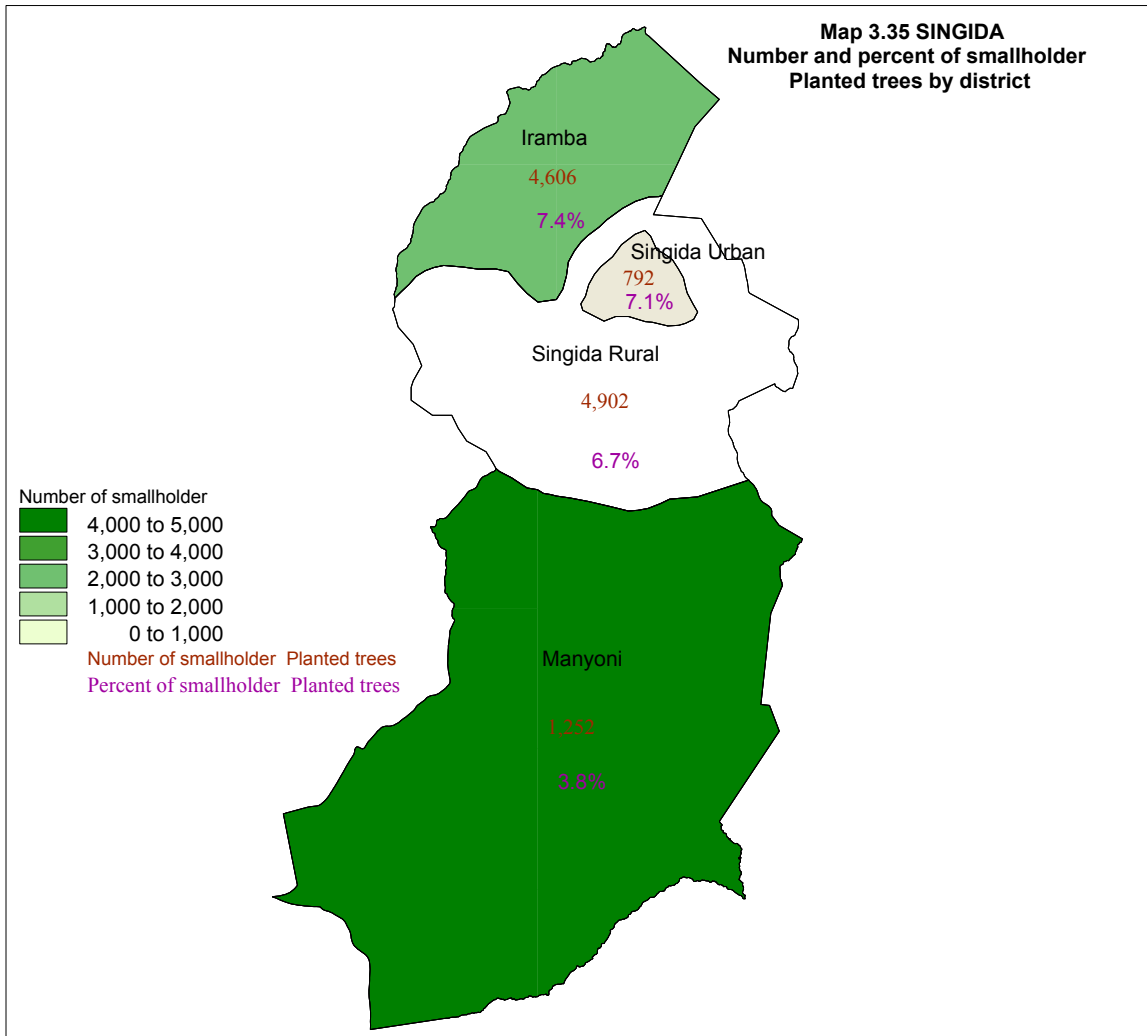


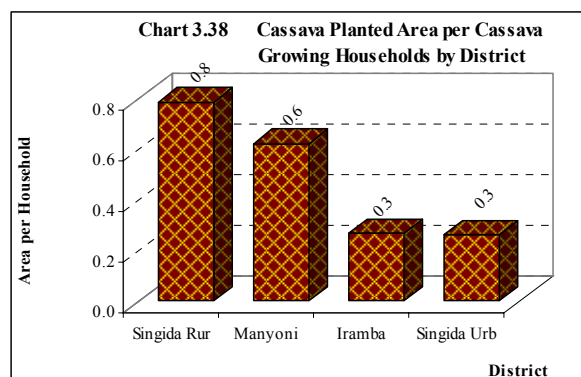
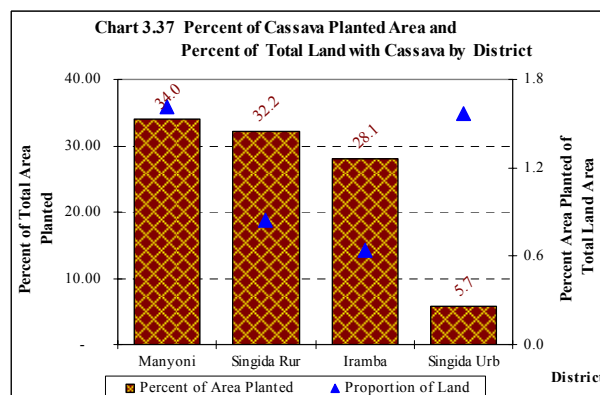
**Map 3.17 SINGIDA
Planted Area and Yield of Beans by District**



**Map 3.18 SINGIDA
Area Planted per Beans Growing Household by District**







Previous censuses and surveys indicate that the area planted with cassava increased from 1,532 in 1994/95 ha in 1994/95 to 30,783 ha in 2002/03 (Chart 3.36). The area planted with cassava accounted for 0.94 percent of the total area planted with annual crops and vegetables during the long rainy season. Manyoni district had the largest planted area of cassava (1,019

ha, 34% of the cassava planted area in the region), followed by Singida Rural (964 ha, 32%), Iramba (842 ha, 28%) and Singida Urban (171 ha, 0.6%) (Map 3.19). However, the highest proportion of land planted with cassava, expressed as a percent of the total land area was in Manyoni district (1.61%). This was followed by Singida Urban (1.56%), Singida Rural (0.84%) and Iramba district (0.64%) (Chart 3.37)

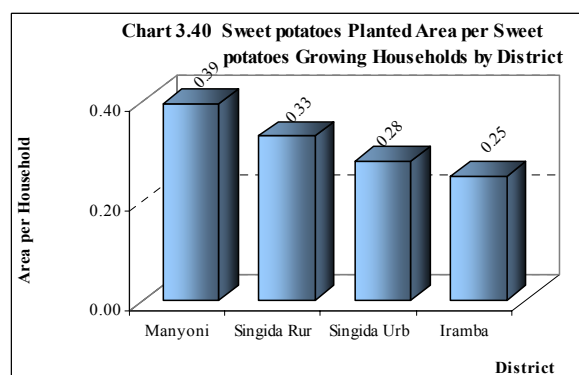
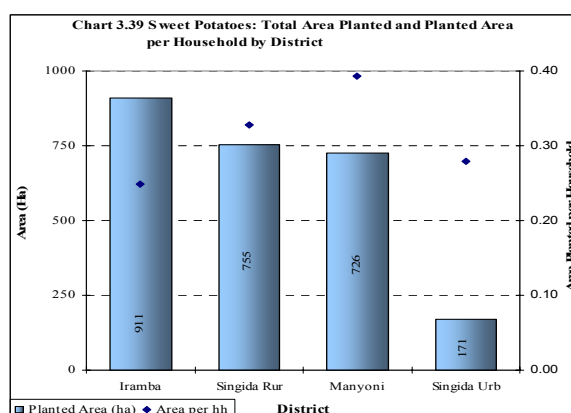
The average planted area of cassava per cassava growing households was 0.5 hectares. However, there were small district variations. The area planted per cassava growing household was greatest in Singida Rural (0.8 ha). This was followed by Manyoni (0.6 ha), Iramba (0.27 ha) and Singida Urban (0.26 ha) (Chart 3.38 and Map 3.20).

3.3.7.2 Sweet potatoes

The number of households growing sweet potatoes in Singida region was 8,432. This was 3 percent of the total root and tuber crop growing households during the long rainy season. The total production of sweet potatoes during the census year was 2,807 tonnes from a planted area of 2,564 hectares resulting in a yield of 1.1t/ha.

Iramba district has the largest planted area for sweet potatoes (911 ha, 36%), followed by Singida Rural (755 ha, 29%), Manyoni (726 ha, 28%) and Singida Urban (171 ha, 7%) (Chart 3.39). Other root and tuber crops are of minor important in terms of area planted compared to cassava and sweet potatoes.

The average planted area of sweet potatoes per sweet potatoes growing households was 0.30 hectares. However, there were small district variations. The area planted per sweet potatoes growing household was greatest in Manyoni (0.39 ha). This was followed by Singida Rural (0.33 ha), Singida Urban (0.28 ha) and Iramba (0.23 ha) (Chart 3.40)



3.3.8 Fruits and Vegetables

The collection of fruit and vegetables production data was difficult due to the small quantities produced per household. Most of the data presented here gives the production of smallholders who grew these crops as cash crops and not merely for household consumption. The dry season is relatively important for production of tomatoes, spinach, cucumber and egg plant. However, most of fruit and vegetables are produced during long rainy season.

The total production of fruits and vegetables was 1,797 tonnes. The most cultivated fruit and vegetable crop was onions with a production of 830 tonnes (46% of the total fruit and vegetables produced) followed by tomatoes (534t, 30%) and cauliflower (15t, 1%). The production of the other fruit and vegetables crops was relatively small (Table 3.6).

The yield of onions was 1,072 kg/ha, tomatoes (1,648 kg/ha) and cauliflower (185 kg/ha) (Chart 3.41).

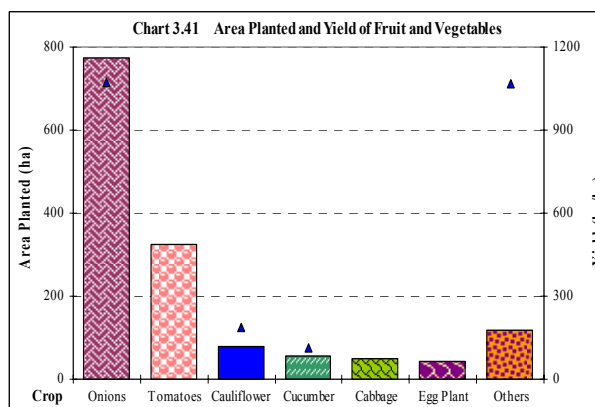


Table 3.6: Area, Production and Yield of Fruits and Vegetables by Season

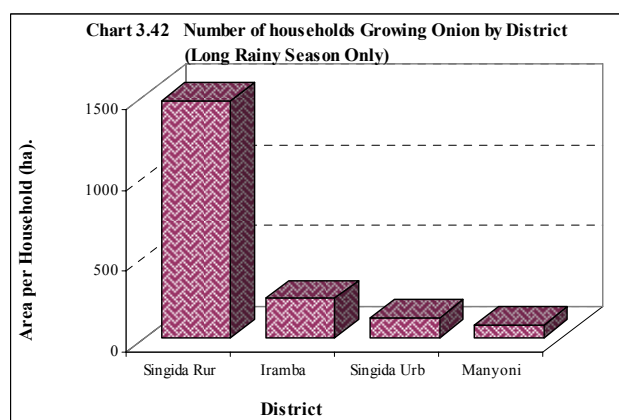
Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Okra	0	0	0	20	8	400	20	8	400
Radish	0	0	0	0	0	0	0	0	0
Bitter Aubergine	0	0	0	16	14	875	16	14	875
Onions	0	0	0	775	830	1,071	775	830	1,071
Ginger	0	0	0	0	0	0	0	0	0
Cabbage	0	0	0	50	169	3380	50	169	3380
Tomatoes	109	266	2440	215	268	1,247	324	534	1,648
Spinnach	15	12	800	19	19	1000	34	31	912
Carrot	0	0	0	0	0	0	0	0	0
Chillies	0	0	0	4	5	1250	4	5	1250
Amaranths	0	0	0	36	60	1667	36	60	1667
Pumpkins	10	10	1000	0	0	0	10	10	1000
Cucumber	39	6	154	17	0	0	56	6	107
Egg Plant	24	96	4000	17	19	1118	41	115	2805
Cauliflower	0	0	0	80	15	188	80	15	188
Total	197	390		1,249	1,407		1,446	1,797	

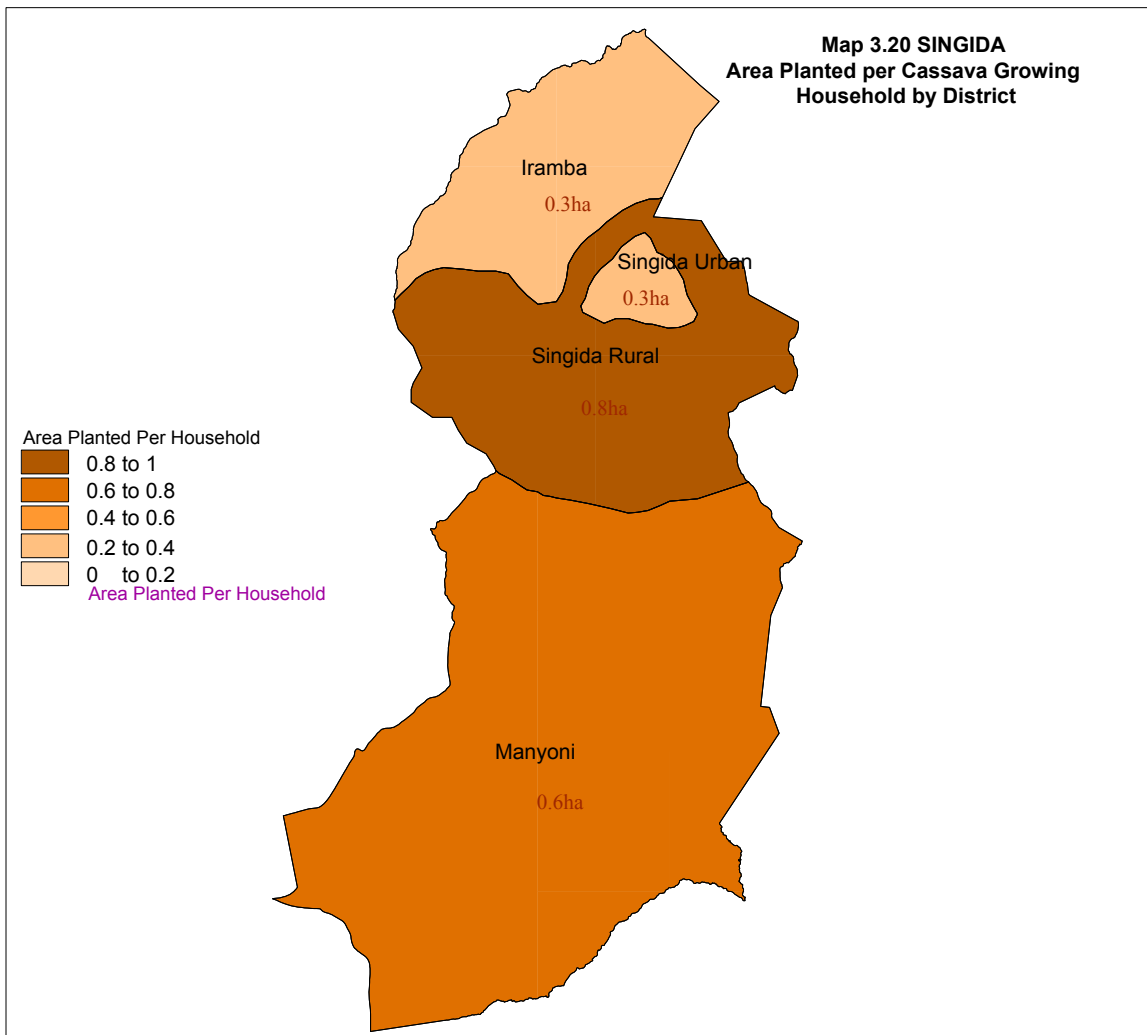
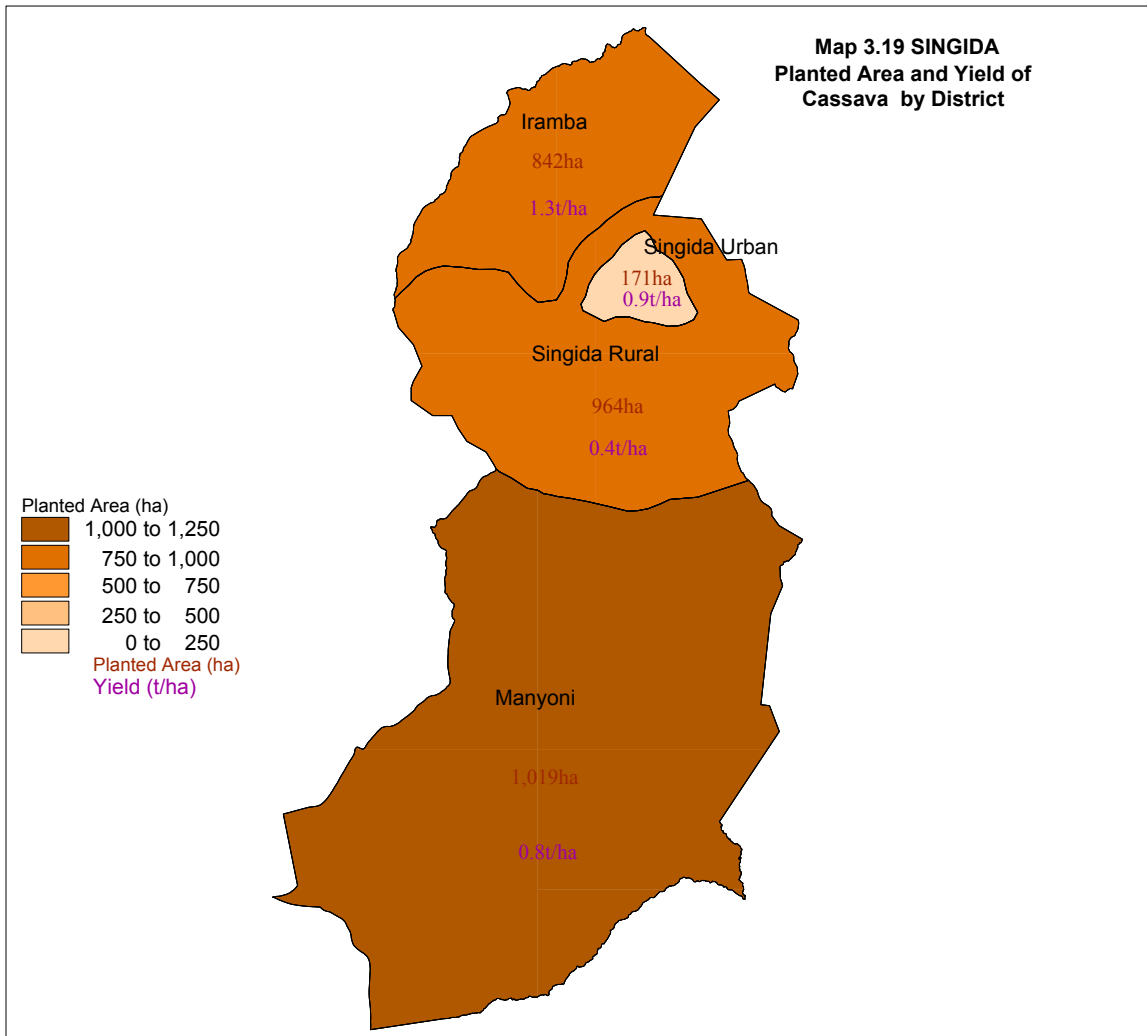
3.3.8.1 Onion

The number of households growing tomatoes in the region during the long rainy season was 1,928. This represented 1.2 percent of the total crop growing households in the

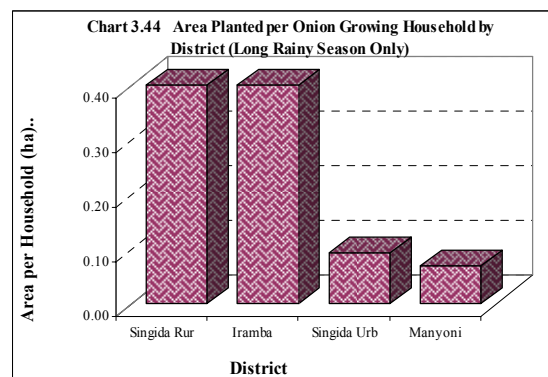
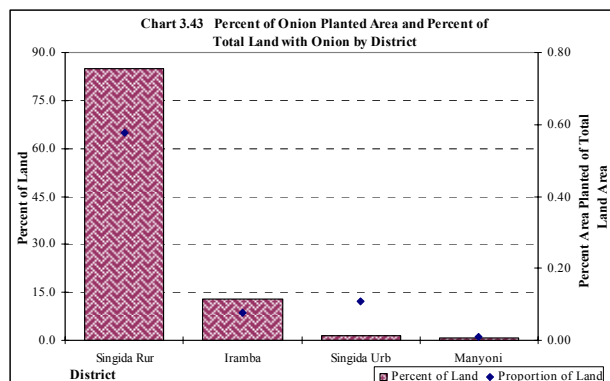
region during the long rainy season. The highest number of households growing onion was found in Singida Rural followed by Iramba, Singida Urban and Manyoni. (Chart 3.42)

Singida Rural district had the largest planted area of onions (84.8% of the total area planted with tomatoes in the region), followed by Iramba (12.9%), Singida Urban (1.5%) and Manyoni (0.7%) (Map 3.21).





The highest percentage of land with onion was found in Singida Rural, followed by Singida Urban, Iramba and Manyoni districts (Chart 3.43). The largest area planted per onion growing household was found in Singida Rural district (0.45 ha) followed by Iramba (0.40 ha), Singida Rural (0.09 ha) and Manyoni (0.07 ha) (Chart 3.44 and Map 3.22). The total area



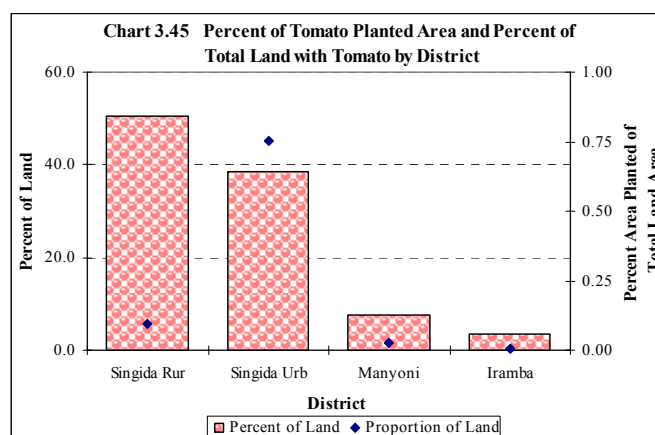
planted with onion accounted for 0.6 percent of the total

area planted with annual crops and vegetables during the long rainy seasons.

3.3.8.2 Tomatoes

The number of households growing tomatoes in the region during the long rainy season was 1,802. This represented one percent of the total crop growing households in the region in the long rainy season.

Singida Rural district had the largest planted area of tomatoes during the long rainy season (108 ha, 50.5% of the total area planted with tomato in the region), followed by Singida Urban (82 ha, 38.3%), Manyoni (17 ha, 7.9%) and Iramba (7 ha, 3.3%) (Chart 3.45

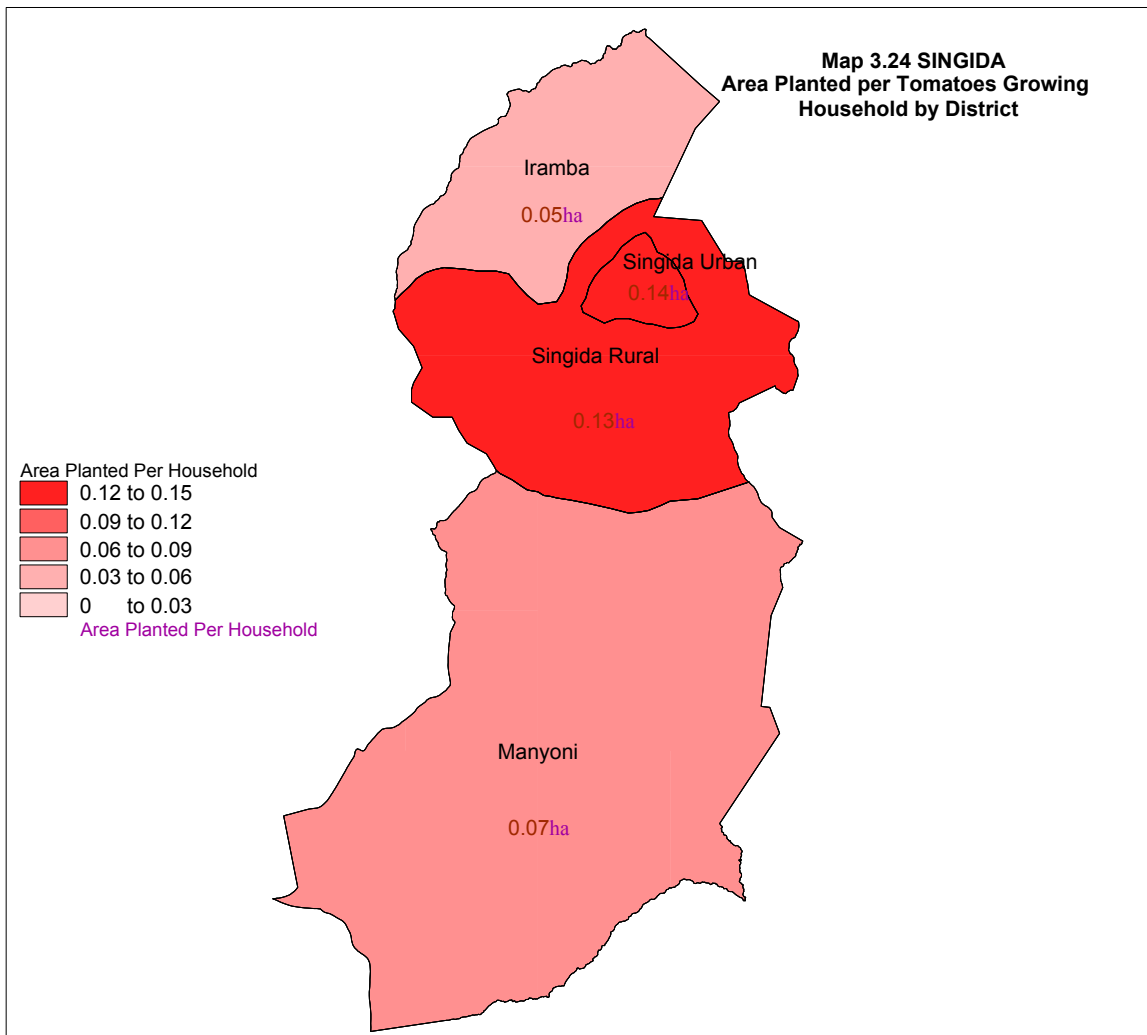
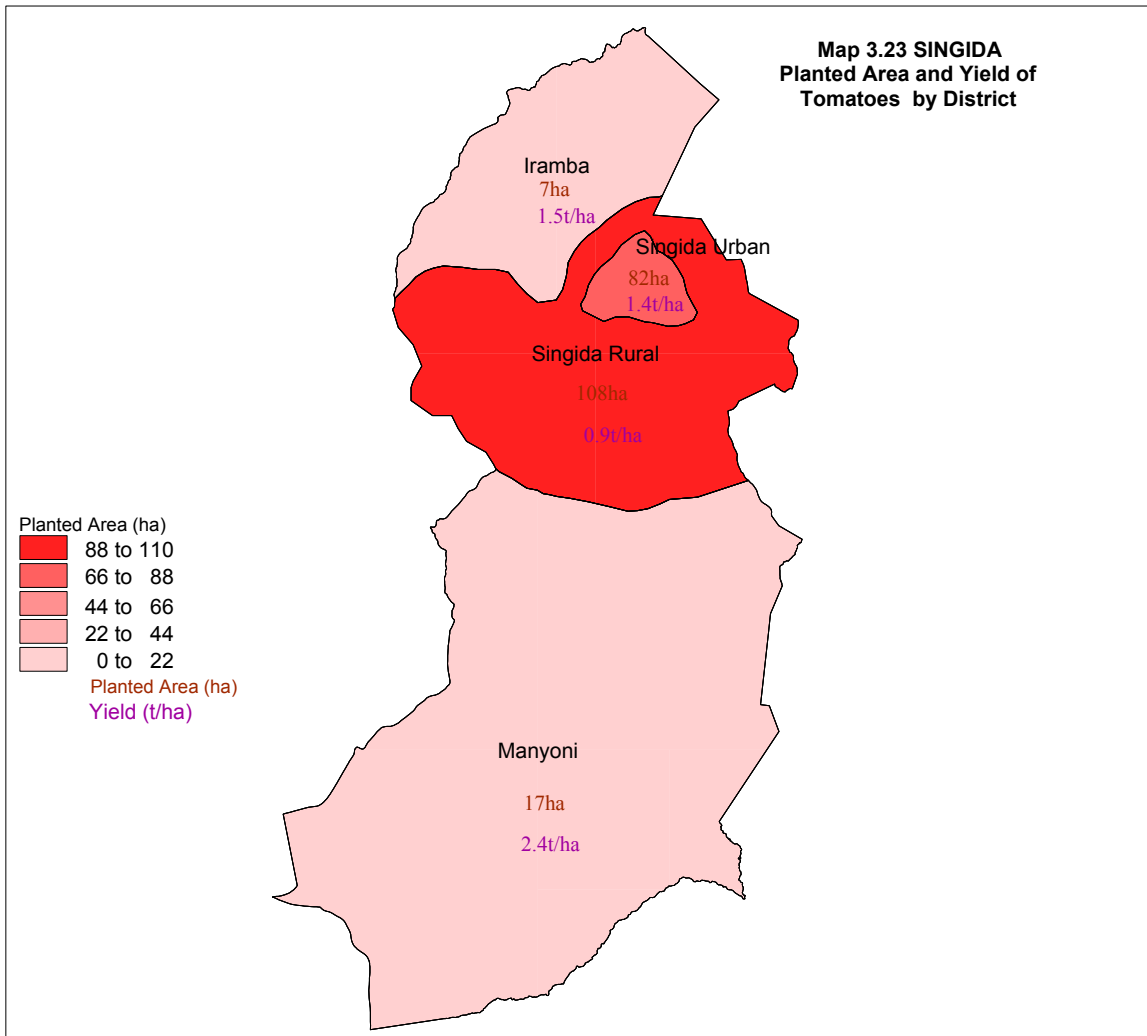


and Map 3.23 and 2.24) The total area planted with tomatoes accounted for 0.07 percent of the total area planted with annual crops and vegetables during the long rainy seasons.

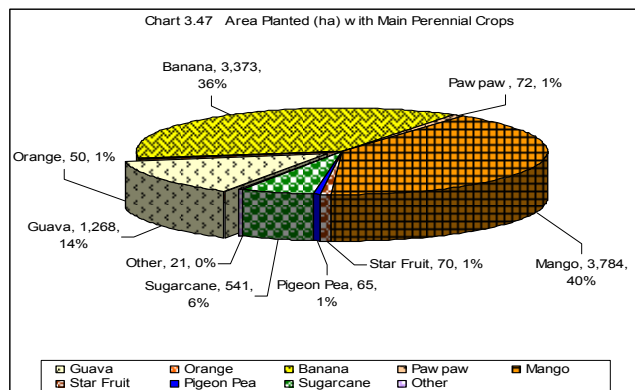
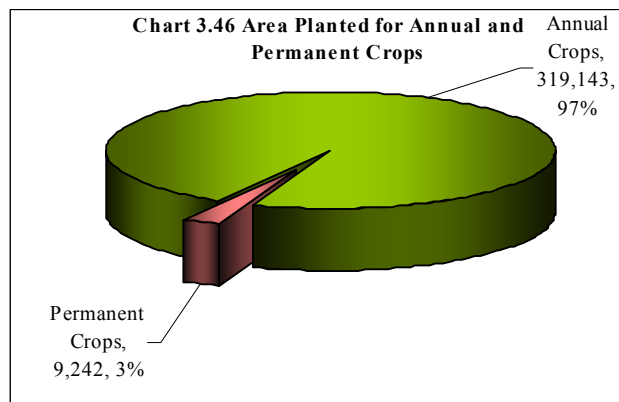
3.4 Permanent Crops

Permanent crops (sometimes referred as perennial crops) are crops that normally take over a year to mature and once they mature can be harvest for a number of years. For most crops, it is easy to determine if they are annual or permanent. However, for crops like cassava and bananas the distinction is not so clear. Cassava has varieties that mature within a year and produce only one harvest, whilst other varieties survive for more than one year and produce several harvests. In this census, cassava was treated as an annual crop. Conversely, bananas normally take less than a year to mature but survive for more than one year and are thus treated as a permanent crops. In this report the agriculture census results are presented for the most important permanent crops in terms of production, yield and area planted. Previous censuses and surveys did not measure these variables for permanent crops, therefore no time series analysis is made in this section.

The area of smallholders planted with permanent crops was 9,242 hectares (3% of the area planted with annual crops in the region). However, the area planted with crops is not the actual physical land area as it includes the area planted more than

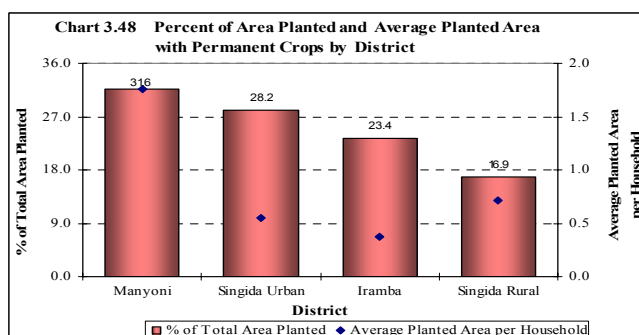


once on the same land, whilst for the planted area for permanent crops is the same as physical planted land area. So the percentage physical area planted with permanent crops would be higher than indicated in Chart 3.46.

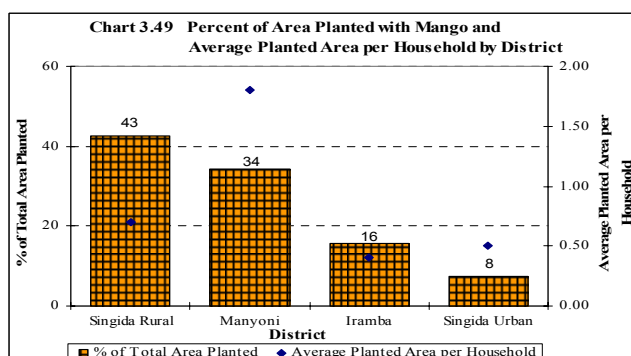


The most important permanent crop in Singida region is Mango which had a planted area of 3,784 ha, (40% of the area planted with all permanent crops) followed by banana (3,373 ha, 36%), guava (1,268 ha, 14%) and sugarcane (541 ha, 6%). Each of the remaining permanent crops had an area of less than 2 percent of the total area planted with permanent crops (Chart 3.47).

Manyoni district had the largest area under smallholder permanent crops (131,853 ha, 31.6%). This is followed by Singida Urban (117,667 ha, 28.2%), Iramba (97,731 ha, 23.4%) and Singida Rural (70,461 ha, 16.9%). However, Manyoni had the largest area per permanent crop growing household (1.8 ha) followed by Singida Rural (0.7 ha), Singida Urban (0.5 ha) and Iramba (0.4 ha) (Chart 3.48).



In terms of area of permanent crops planted expressed as a percentage of the total area planted with crops per district, Singida Urban had the highest (6.0%) followed by Manyoni (4.8%), Singida Rural (3.3%) and Iramba (1.1%)



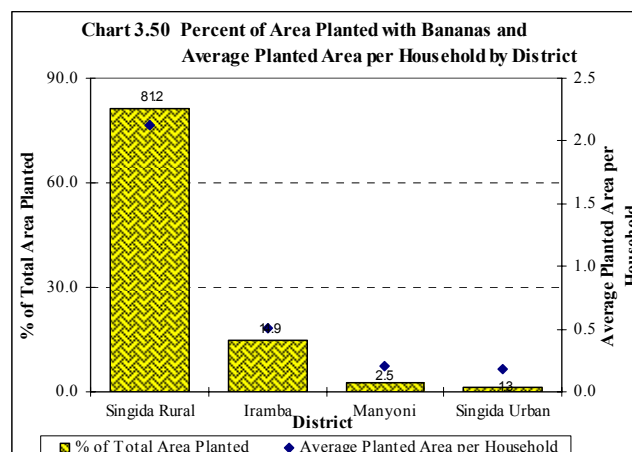
3.4.1 Mango

The total production of mangoes by smallholders was 254 tonnes. In terms of area planted, mango was the most important permanent crop grown by smallholders in the region. They were grown by 2,599 households (26% of the total crop growing households). The average area planted with mango per mango growing households was moderate at around 1.5 ha per mango growing household and the average yield obtained by smallholders was 3,331 kg/ha from a harvest area of 76 hectares.

Singida Rural had the largest area of mango in the region (3,940 ha, 43%) followed by Manyoni (3,159 ha, 34%), Iramba (1,449 ha, 16%) and Singida Urban (695 ha, 8%) (Map 3.25). However, the average area planted with mango per mango growing household was highest in Manyoni (1.8 ha) followed by Singida Rural (0.7 ha), Singida Urban (0.5 ha) and Iramba (0.4 ha) (Chart 3.49 and Map 3.26).

3.4.2 Bananas

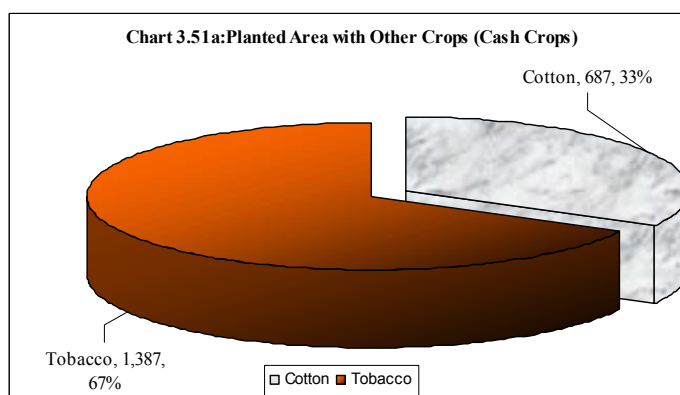
The total production of bananas by smallholders was 873 tonnes. In terms of area planted, banana was the second most important permanent crop grown by smallholders in the region. It was grown by 2,937 households (0.9% of the total crop growing households). The average area planted with bananas per household was moderate at around 1.1 ha per banana growing household and the average yield obtained by smallholders was 3,371 kg/ha from a harvest area of 259 hectares.



Singida Rural had the largest area of bananas in the region (2,739 ha, 81.2%) followed by Iramba (503 ha, 14.9%), Manyoni (86 ha, 2.5%) and Singida Urban (45 ha, 1.3%) (Map 3.27) However, the average area planted with bananas per banana planting household was highest in Singida Rural (2.1 ha) followed by Iramba (0.5 ha), Manyoni (0.21 ha) and Singida Urban (0.18 ha). (Chart 3.50 and Map 3.28)

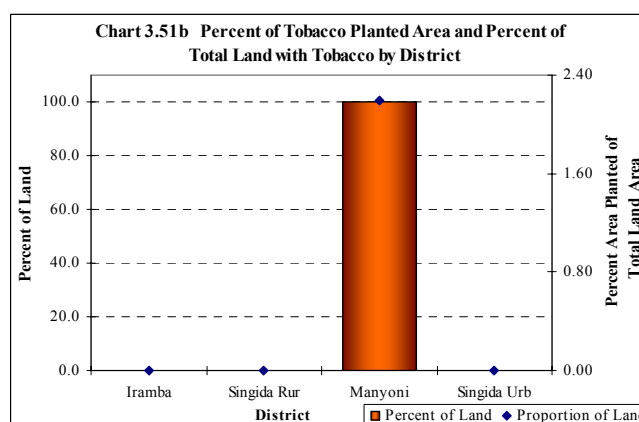
3.3.8 Other Annual Crop Production

Most of the other annual crops are cash crops. An area of 2,074 ha was planted with other annual crops and tobacco was the most prominent followed by cotton. Cash crops were grown in long rainy season only.



3.3.9.1 Tobacco

Only 1,083 tonnes of tobacco were produced in Singida region on a planted area of 1,387 ha. It was produced during the long rainy season only. The crop is grown in Manyoni district only (Chart 3.51b) and only 1.0 ha was grown per household.

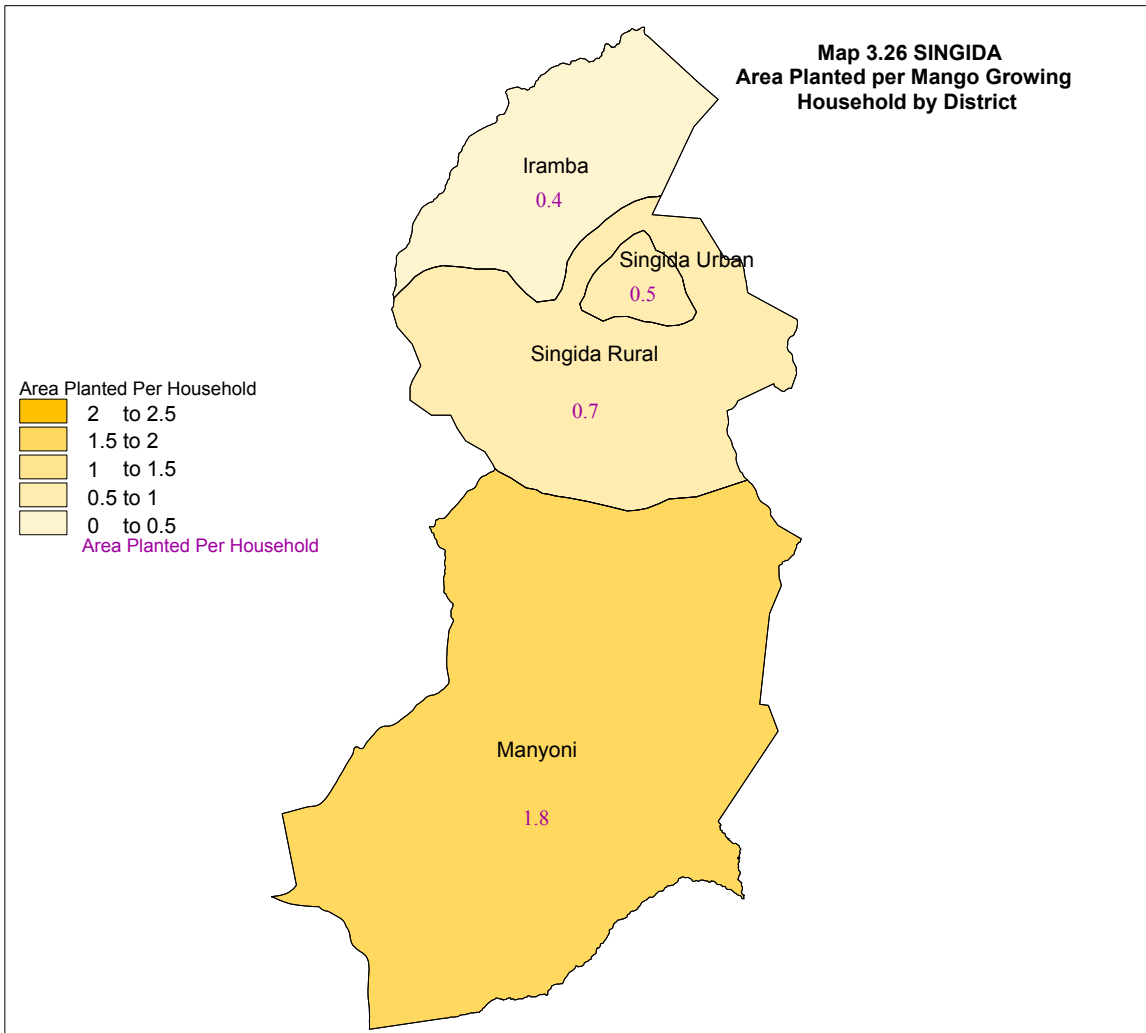
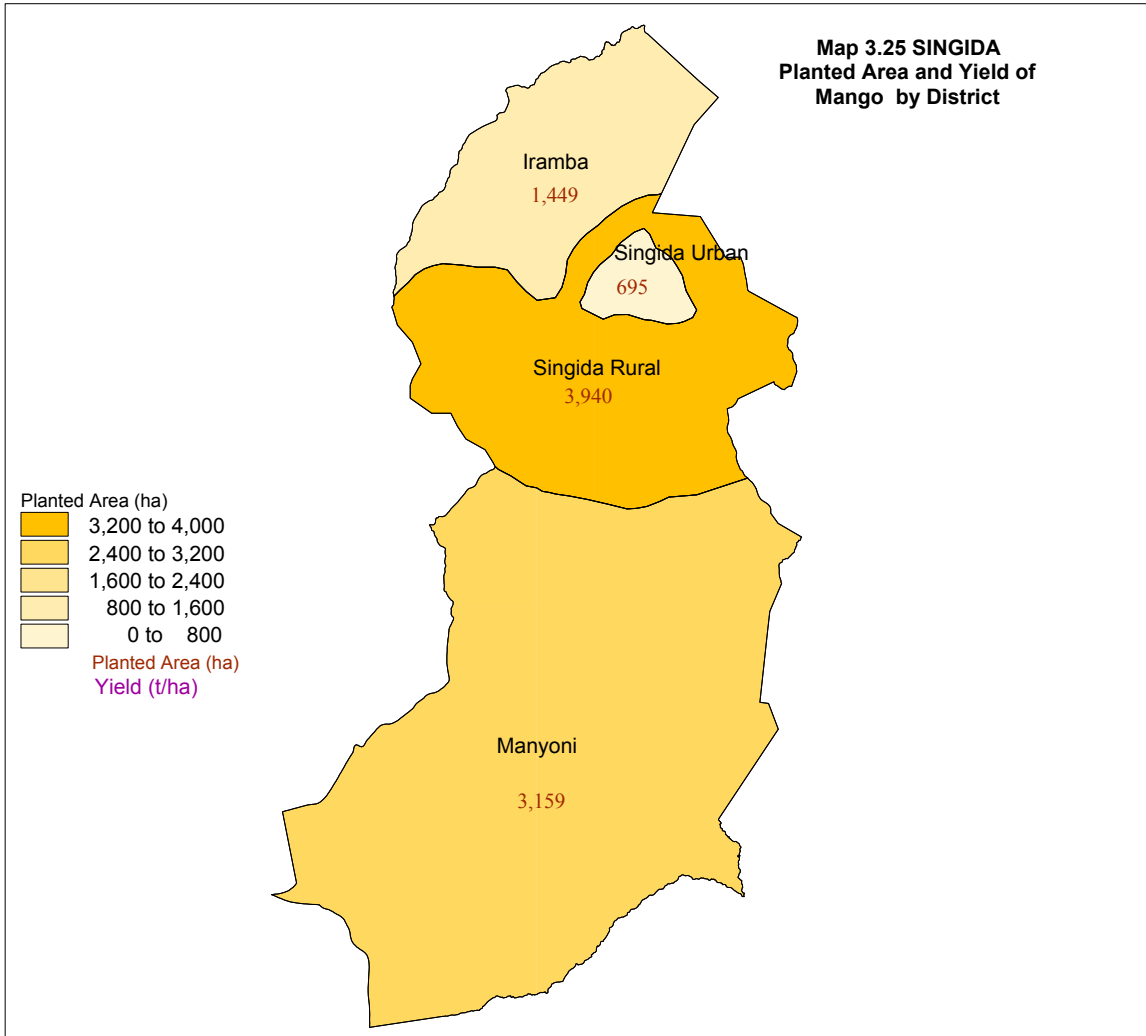


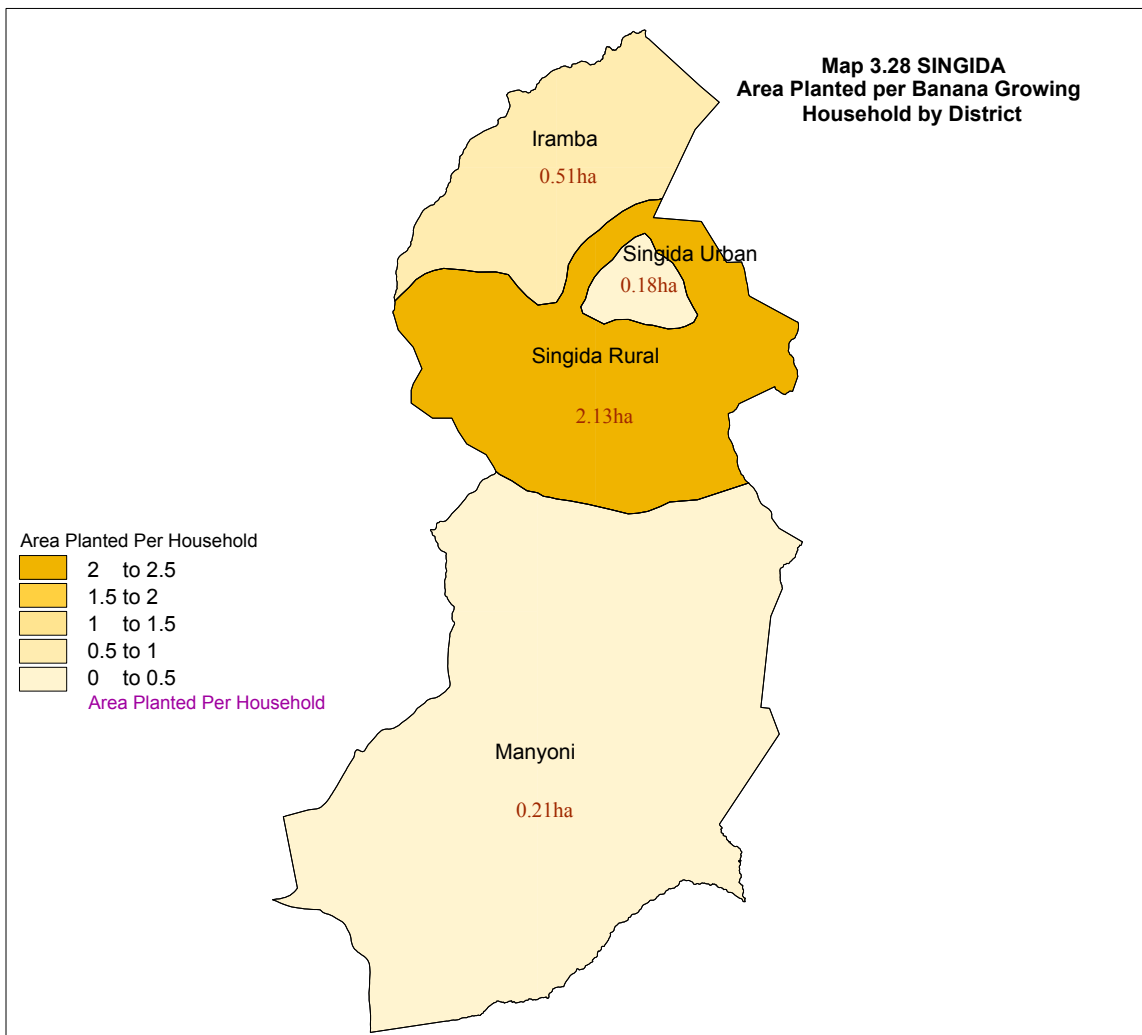
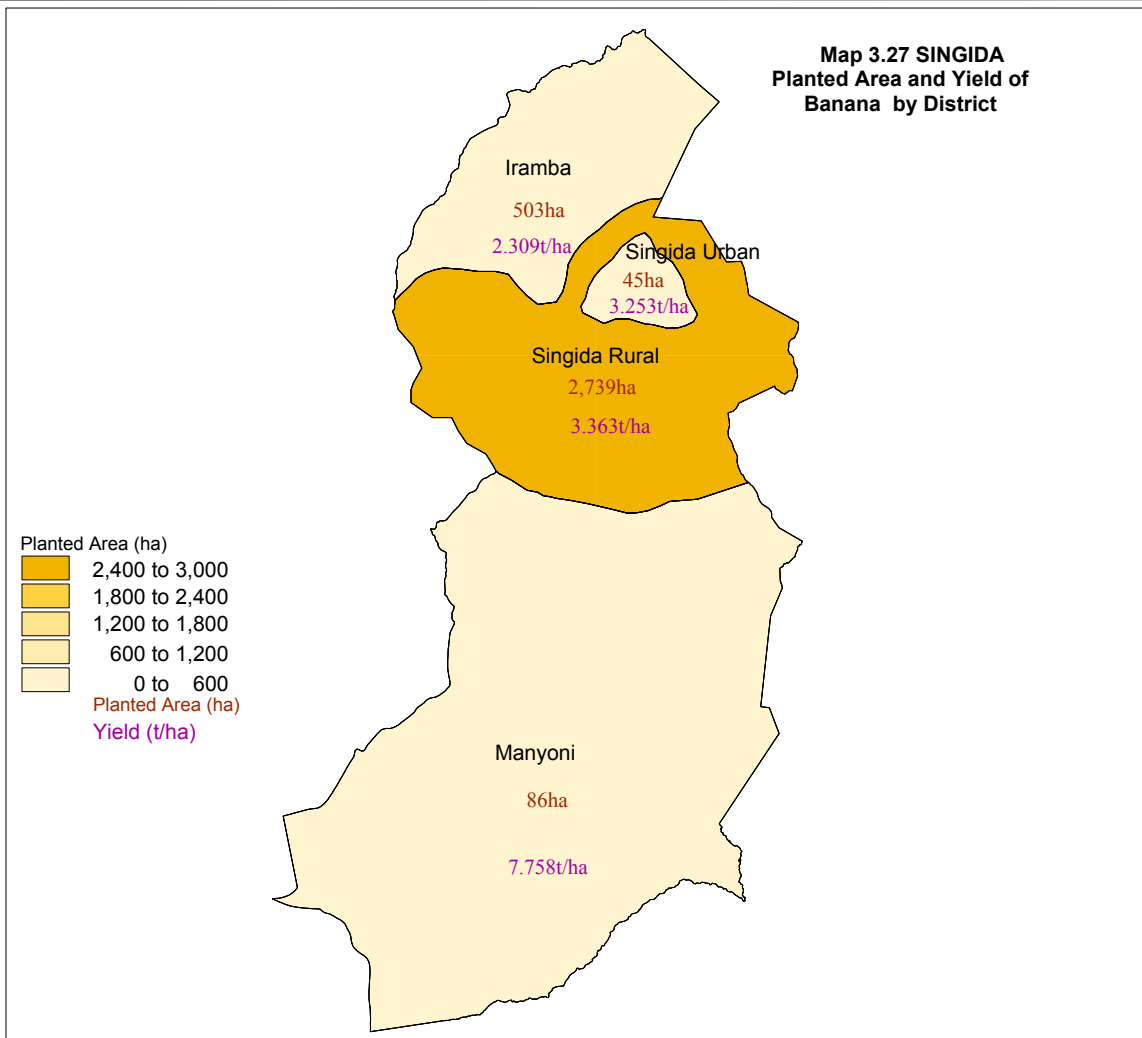
3.3.9.2 Cotton

The quantity of cotton produced was 275 tonnes. Cotton had a planted area of 687 ha, all of which was planted in the long rainy season. Cotton was produced in Manyoni district only.

Table 3.7: Area, Production and Yield of Annual Cash Crops by Season

Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Seaweed	0	0	0	0	0	0	0	0	0
Cotton	0	0	0	687	275	400	687	275	400
Tobacco	0	0	0	1,387	1,083	780	1,387	1,083	780
Jute	0	0	0	0	0	0	0	0	0
TOTAL	0	0		2,074	1,358		2,074	1,358	





3.5 Inputs/Implements Use

3.5.1 Methods of Land Clearing

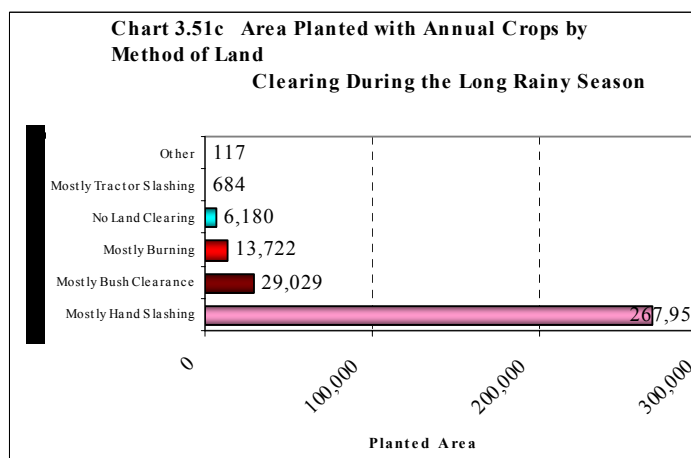
Land clearing is a common pre-tillage operation practiced by most farmers in the region. Land clearing is divided into two categories: bush clearing,

which by definition implies either expansion into virgin areas or into areas which have been left fallow for a long period and burning, hand slashing or tractor slashing, which is normally an annual clearing exercise to remove vegetation growth from the previous season.

Hand slashing is the most widespread method used for land clearing. The area cleared by hand slashing in the region during the long rainy season was 267,954 ha which represented 84.3 percent of the total planted area, followed by bush clearing (29,029 ha, 9.1%) and burning (13,722 ha, 4.3%). No land clearing, tractor slashing and other means are less important methods for land clearing and they represent 1.9, 0.2 and 0.04 percent respectively (Chart 3.51c and Table 3.8).

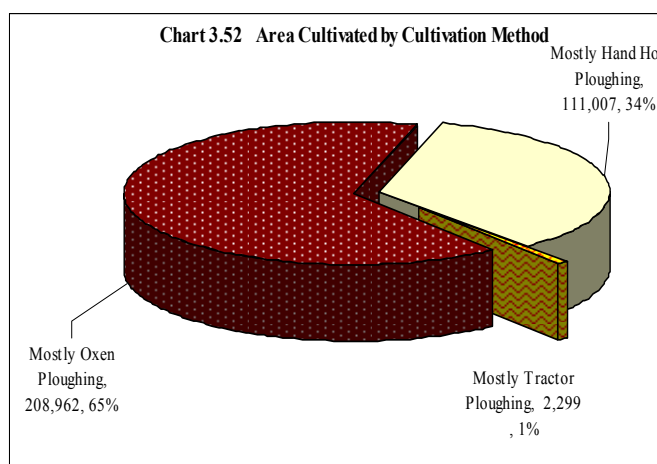
Table 3.8: Land Clearing Methods

Method of Land Clearing	Long Rainy Season			Dry Season			Total		
	Number of Households	Area Planted	%	Number of Households	Area Planted	%	Number of Households	Area Planted	%
Mostly Hand Slashing	156,628	267,954	84.3	1,075	2,335	99.5	157,703	270,289	84.4
No Land Clearing	2,195	6,180	1.9	0	0	0	2,195	6,180	1.9
Mostly Bush Clearance	11,822	29,029	9.1	120	12	0.5	11,942	29,041	9.1
Mostly Burning	8,012	13,722	4.3	0	0	0	8,012	13,722	4.3
Mostly Tractor Slashing	556	684	0.2	0	0	0	556	684	0.2
Other	144	117	0	0	0	0	144	117	0
Total	179,357	317,686	100	1,195	2,347	100	180,552	320,033	100



3.5.2 Methods of Soil Preparation

Oxen ploughing is the most used method of preparation as it was used in an area of 207,558 ha which represented 65 percent of the total planted area, followed by hand cultivation (110,132 ha, 34%) and tractor ploughing (2,287 ha, 1%) (Chart 3.52).

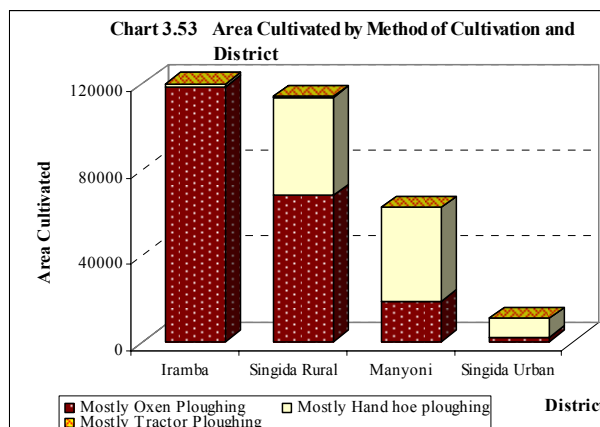


In Singida region, Iramba district had the largest planted area cultivated with oxen (118,470 hectares, 57.1%) followed by Singida Rural (68,074 ha, 2.8%), Manyoni (18,799 ha, 9.0%) and Singida Urban (2,215 ha, 1.1%).

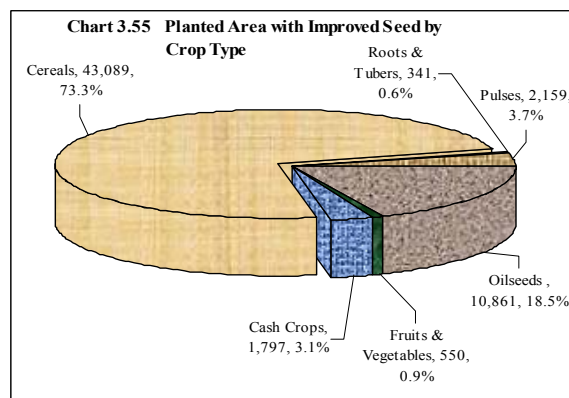
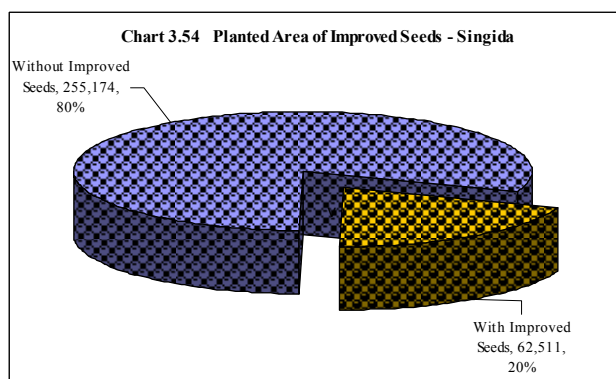
During the long rainy season, 68.9 percent of the total area cultivated by using oxen was planted with cereals followed by oil seeds (18.8%), pulses (7.3%) roots and tubers (3.2%) fruit and vegetables (1.3%) and cash crops (0.5%).

3.5.3 Improved Seed Use

The planted area using improved seeds was estimated at 62,511 ha which represents 20 percent of the total planted with the annual crops and vegetables area.



Cereals had the largest area planted with improved seeds (43,089 ha, 73.3% of the planted area with improved seeds) followed by Oil seed (10,861 ha, 18.5%), pulses (2,159 ha, 3.7%), cash crops (1,797 ha, 3.1%), fruit and



vegetables (550 ha, 0.9%) and root and tubers (341 ha, 0.6%) (Chart 3.55). However, the use of improved seed in cash crops and fruit and vegetables is much greater than in other crop types (81% and 44% respectively), only 8 percent of the planted area for roots and tubers used improved seeds (Chart 3.56).

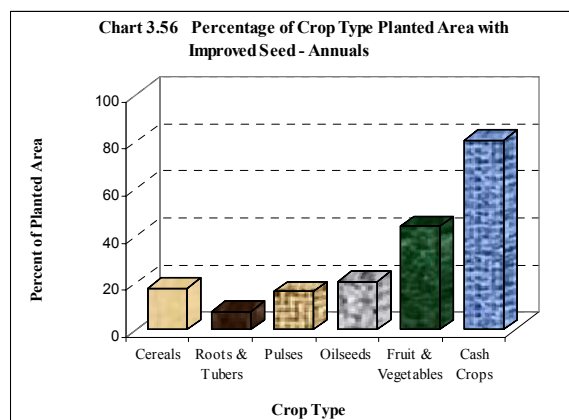
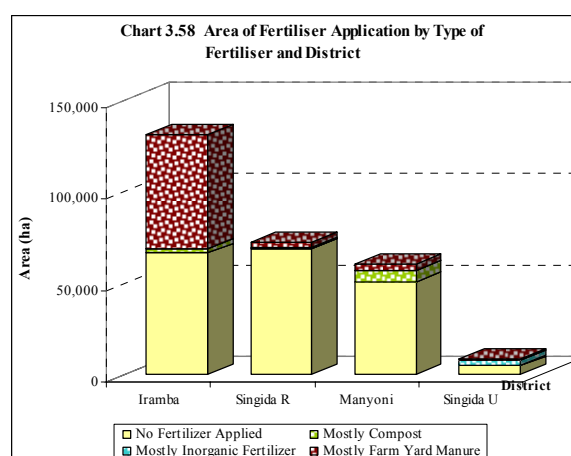
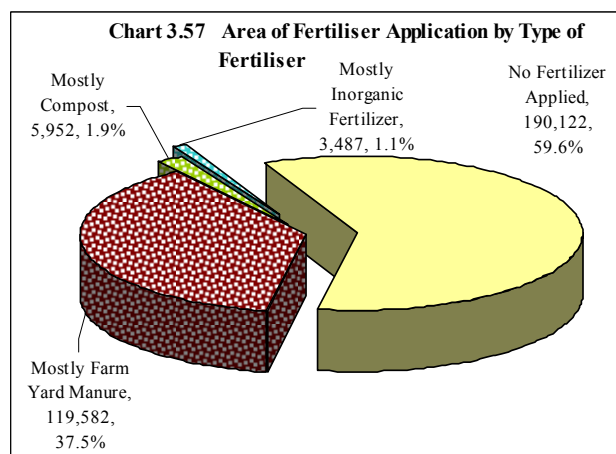


Table 3.9 Planted Area by Type of Fertiliser Use and District - Long Rainy Season

District	Fertilizer Use			Total	No Fertilizer Applied
	Mostly Farm Yard Manure	Mostly Compost	Mostly Inorganic Fertilizer		
Iramba	62,040	2,569	93	64,702	66,307
Singida R	42,988	2,363	250	45,601	68,431
Manyoni	8,817	547	3,144	12,508	50,652
Singida U	5,765	473	0	6,238	4,688
Total	119,610	5,952	3,487	129,049	190,078

3.5.4 Fertilizer Use

The use of fertilisers on annual crops is moderate with a planted area of only 129,050 ha (40% of the total planted area in the region). The planted area without fertiliser for annual crops was 190,078 hectares representing 60 percent of the total



planted area with annual crops. Of the planted area with fertiliser application, farm yard manure was applied to 119,610 ha which represents 37.5 percent of the total planted area (92.7% of the area planted with fertiliser application in the region). This was followed by compost (5,952 ha, 4.6%). Inorganic fertilizers were used on a very small area and represented only 2.7 percent of the area planted with fertilizers.

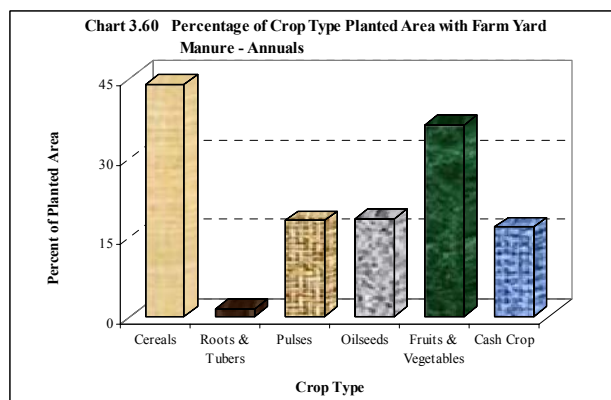
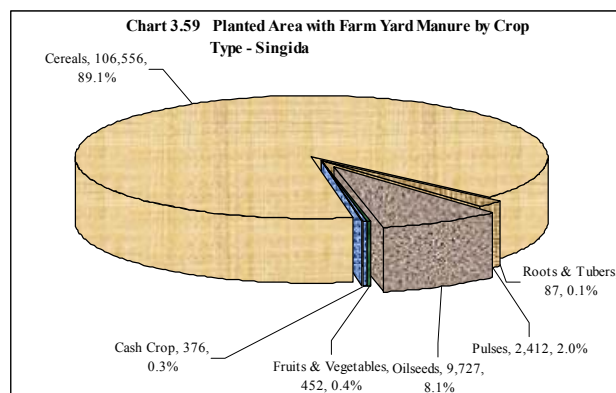
The highest percentage of the area planted with fertilizer (all types) was in Iramba district (50.1%) followed by Singida Rural (35.3%), Manyoni (9.7%) and Singida Urban (4.8%) (Table 3.9 and Charts 3.62 and 3.63).

Most annual crop growing households do not use any fertiliser (approximately 255,726 households, 64%) (Map 3.29). The percentage of the planted area applied with fertilisers was highest for cereals (88.1% of the area planted with fertilizers during the long rainy season). This was followed by oil seeds and oil nuts (8.1%), pulses (2.0%), cash crops (1.3%), fruit and vegetables (0.4%) and roots and tubers (0.1%) (Table 3.10).

Table 3.10: Number of Crop Growing Households and Planted Area by Type of Fertiliser Use and District – Long Rainy Season

District	Fertiliser Use									
	Mostly Farm Yard Manure		Mostly Compost		Mostly Inorganic Fertiliser		No Fertiliser Applied		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Cereals	111,345	106,556	6,471	5,137	2,126	1,984	153,358	130,068	273,300	243,745
Roots & Tubers	476	87	79	32	0	0	14,599	5,605	15,154	5,724
Pulses	6,661	2,412	370	91	74	72	21,641	10,767	28,746	13,342
Oil seeds & Oil nuts	10,060	9,727	879	680	190	90	63,321	42,346	74,450	52,843
Fruits & Vegetables	2,464	452	125	13	78	6	2,501	778	5,168	1,249
Cash Crops	283	376	0	0	1,278	1,335	306	515	1,867	2,226
Total	131,289	119,610	7,924	5,953	3,746	3,487	255,726	190,079	398,685	319,129

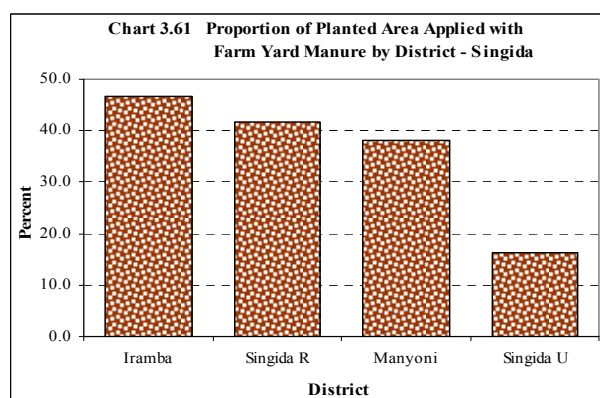
3.5.4.1 Farm Yard Manure Use



The number of households that applied farm yard manure in their annual crops during the long rainy season was 131,289 and it was applied to 119,610 ha. The total planted area applied with farm yard manure in Singida region was 119,610 ha representing 37 percent of the total area planted with annual crops during that season (Table 3.10). Cereals had the highest percentage of the area applied with farm yard manure (89.1%), followed by oil seed and oil nuts (8.1%), pulses (2%), fruit and vegetables (0.4%), cash crop (0.3%) and roots and tubers (0.1%)

However, cereals had the highest proportion of its planted area with farm yard manure (43.7% of the total area planted with cereals). This was followed by fruit and vegetables (36.2%), oil seeds (18.4%), pulses (18.1%), cash crop (16.9%) and roots and tubers (1.5%). (Charts 3.59 and 3.60).

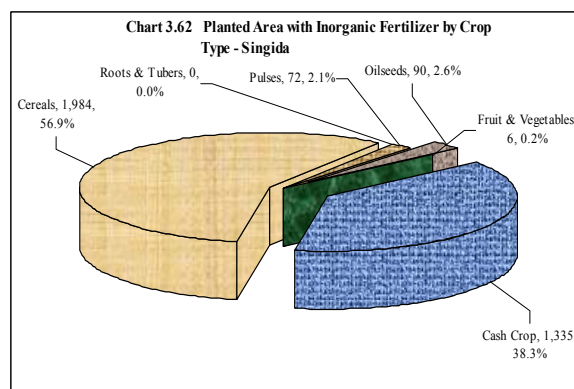
Farm yard manure was mostly used in Iramba (46.5% of the total planted area in the district), followed by Singida Rural (41.6%), Manyoni (38.2%) and Singida Urban (16.3%) (Chart 3.61)



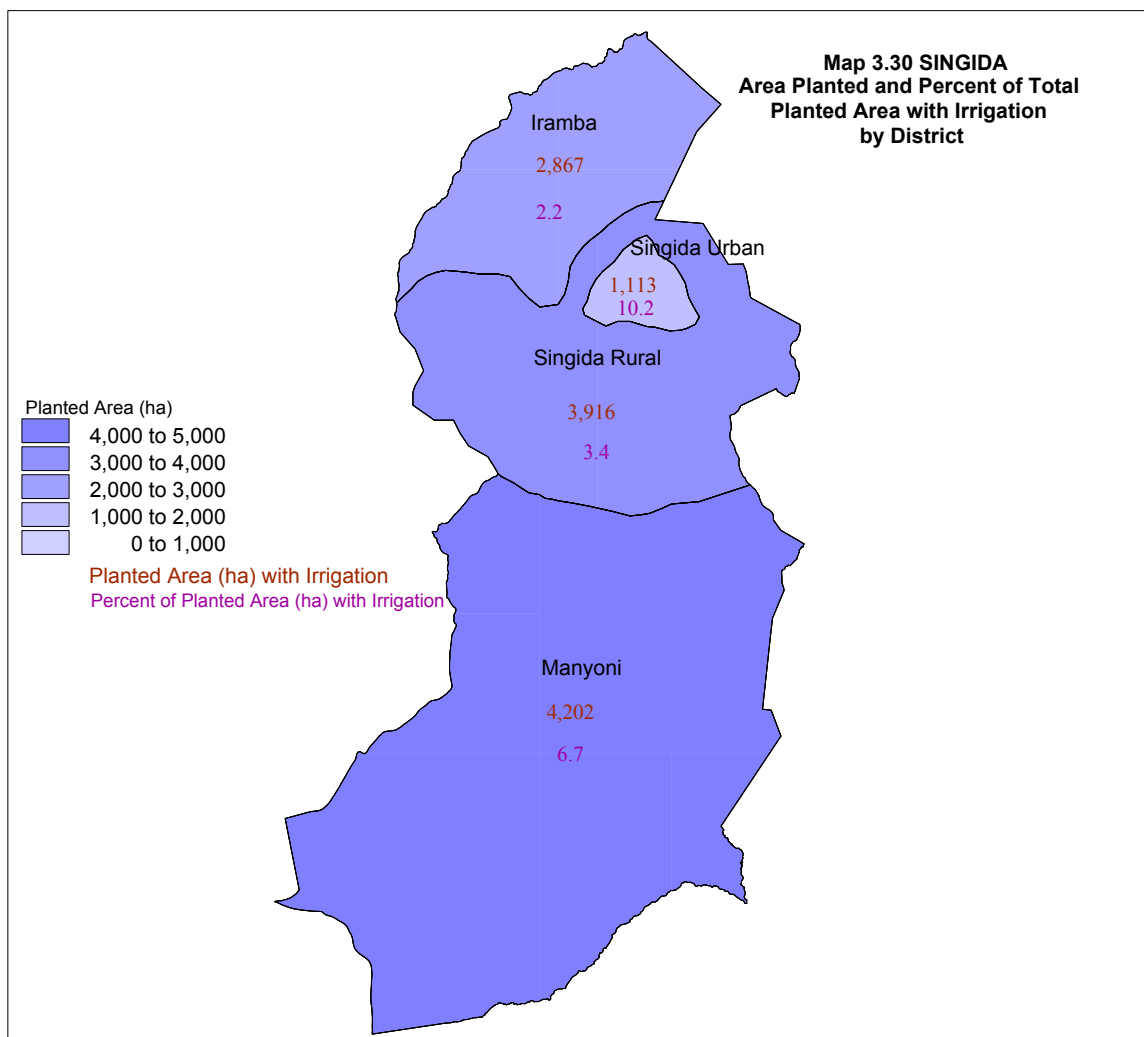
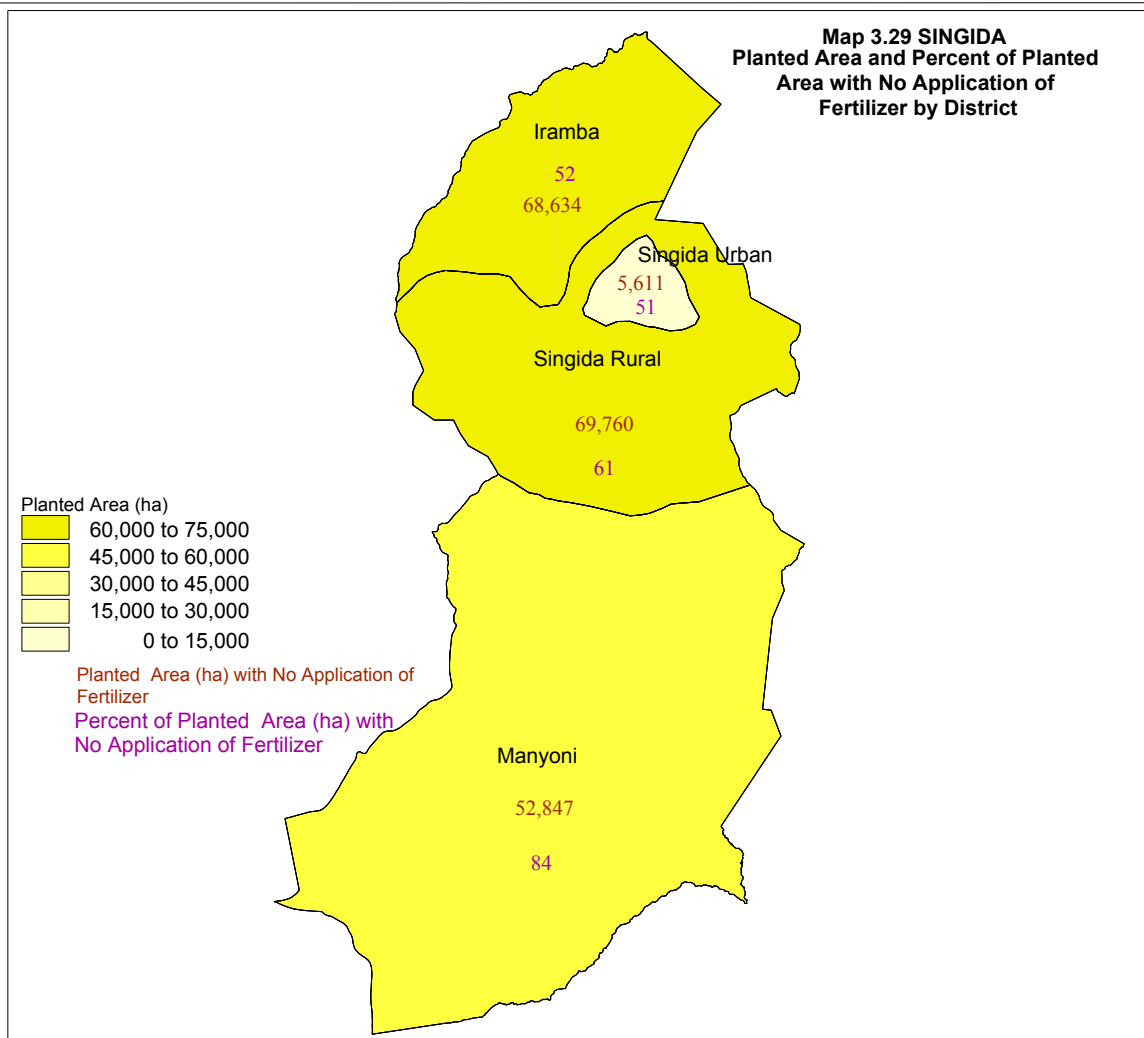
3.5.4.2 Inorganic Fertiliser Use

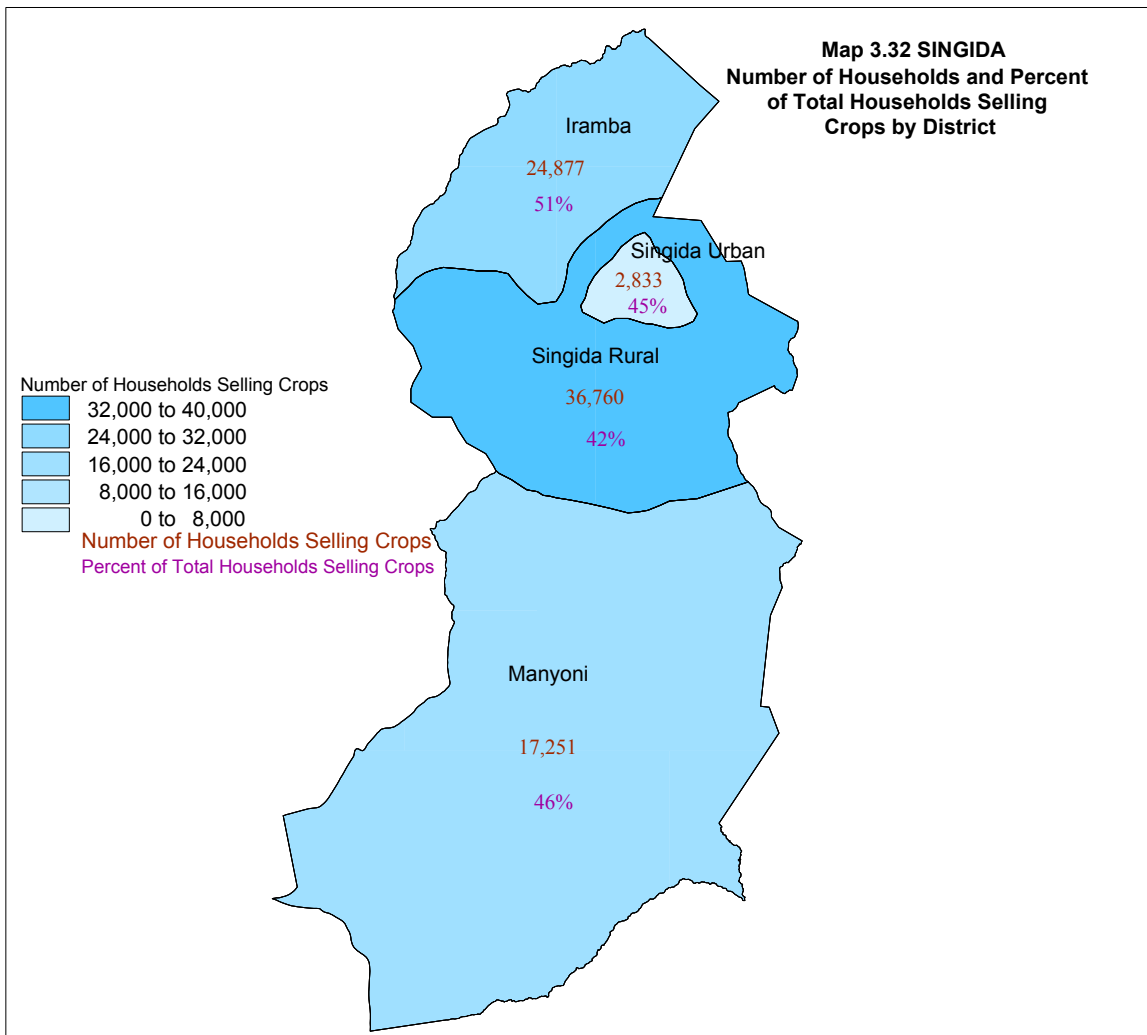
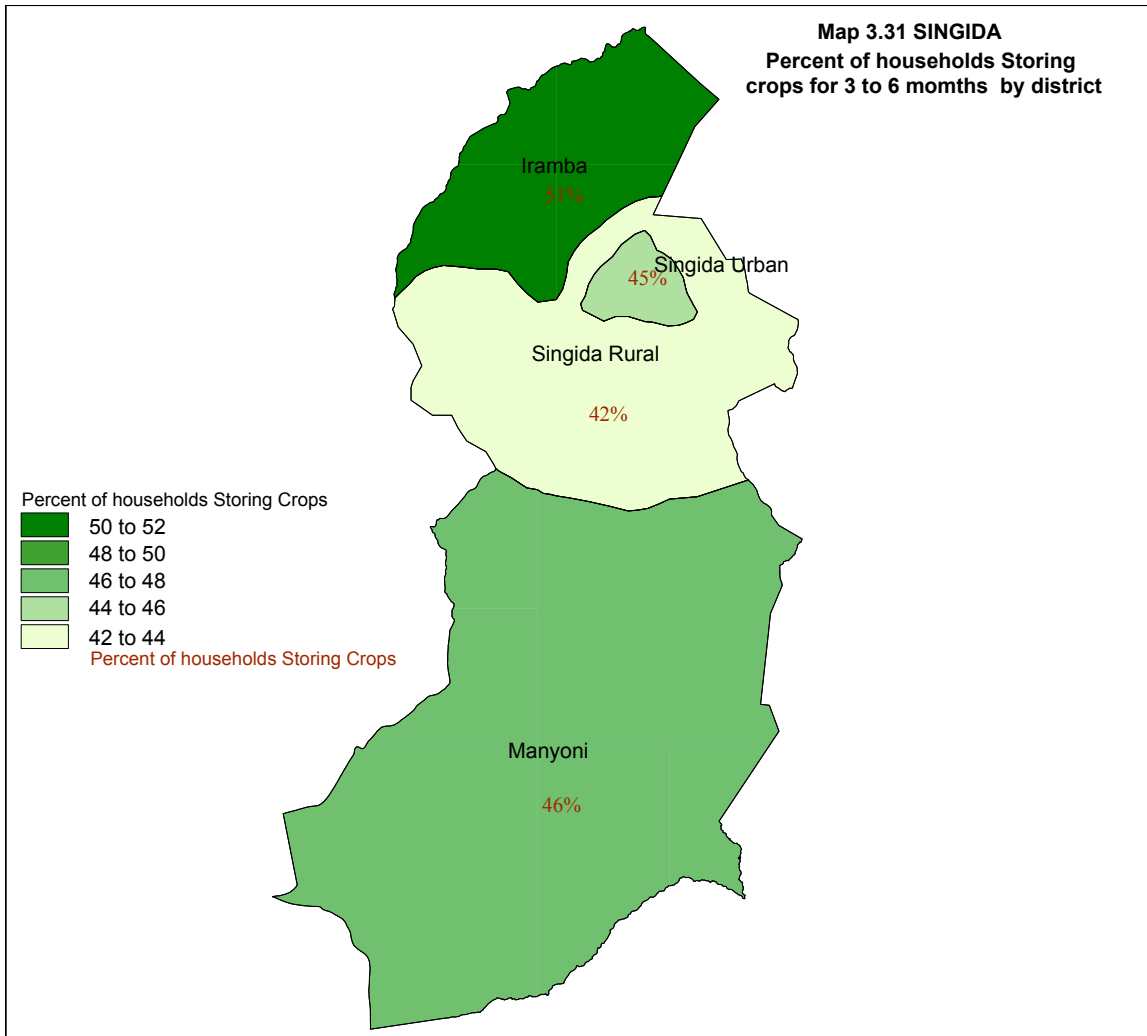
The total planted area applied with inorganic fertilisers in Singida region was 3,487 ha which represents 1.1 percent of the

total planted area with annuals during the long rainy season and 2.7 percent of the total planted area with fertiliser. The number of households that applied inorganic fertilisers on their annual crops during the long rainy season was 3,746 (Table 3.10). The largest area applied with inorganic fertilisers was on cereals (56.9% of the total area applied with inorganic



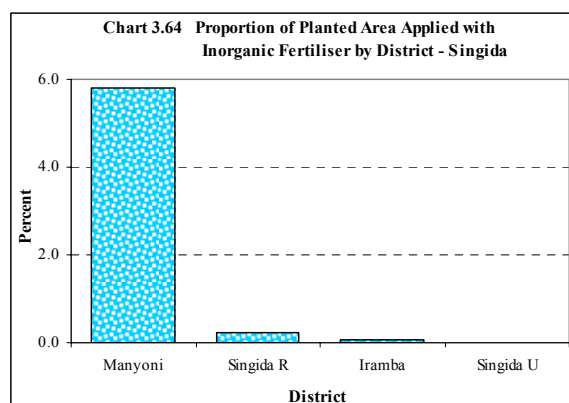
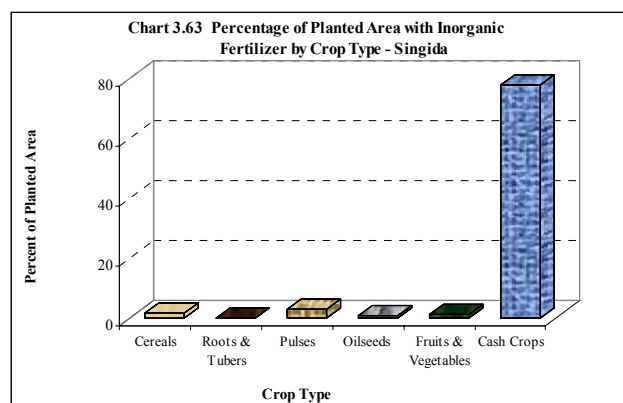
fertilizers), followed by cash crop (38.3%), oil seeds (2.6%), and pulses (2.1%) (Chart 3.62). However, the proportion of cash crops with inorganic fertilizers was 60 percent higher than other crop types, followed by cereals (.8%), oil seeds (.2%) and fruit and vegetables (.5%) (Chart 3.63)





Inorganic fertiliser is mostly used in Manyoni (5.0% of the total planted area in the district), followed by Singida Rural (0.2%) and Iramba (0.1%). Singida Urban district used virtually no inorganic fertiliser. (Chart 3.64).

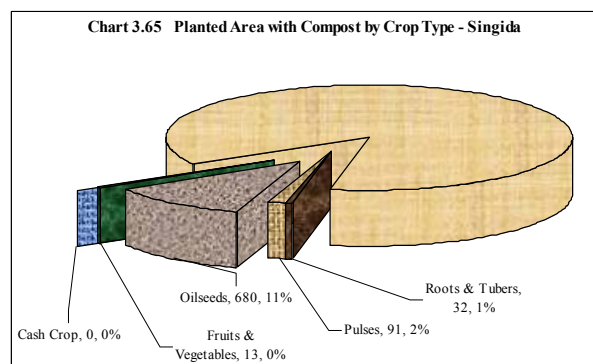
In permanent crops inorganic fertiliser were used mainly on cotton (100%).



3.5.4.3 Compost Use

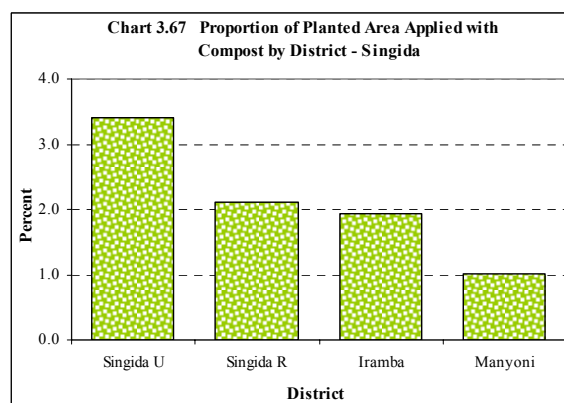
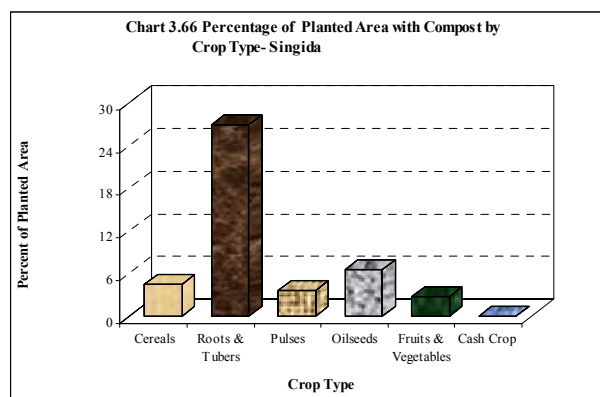
The total planted area applied with compost was 5,953 ha which represents only 1.9 percent of the total planted area with annual crops in the region and 4.6 percent of the total planted area with fertiliser in the region. The number of households that applied compost manure on their annual crops during the long rainy season was 7,924. The proportion of area applied with compost was very low for each type of crop (0 to 2%); however the distribution of the total area using compost manure shows that 86 percent of this area was cultivated with cereals, followed by oil seeds (11%), pulses (5%) and root and tubers (1%) (Chart 3.65).

Compost is mostly used in Singida Urban (4.3% of the total planted area in the district), and this is closely followed by Singida Rural (2.1%), Iramba (2.0%) and Manyoni (0.9%) (Chart 3.67).

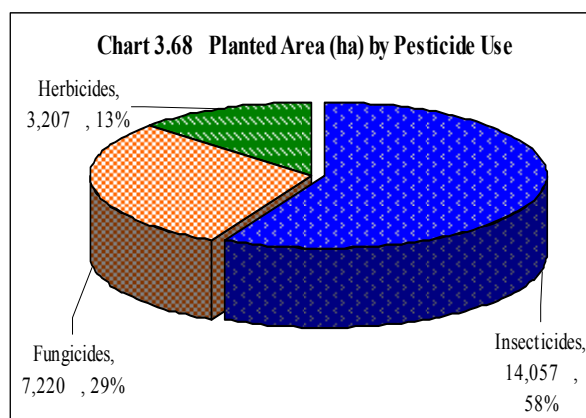


3.5.5 Pesticide Use

Pesticides are chemicals used for controlling insects, diseases and weeds. This section analyses the use of these chemicals by smallholders on both annual and permanent crops in the region. Pesticides were applied to a planted area of 24,484 ha of annual crops and vegetables.

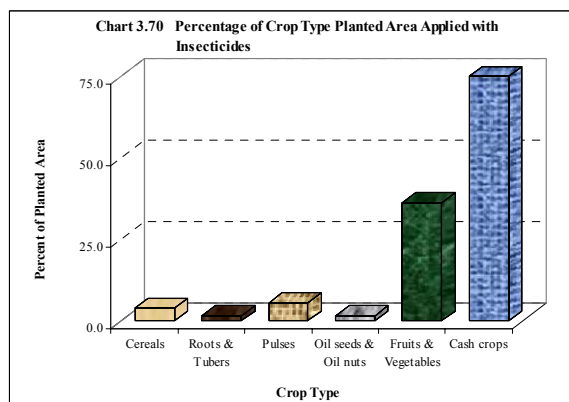
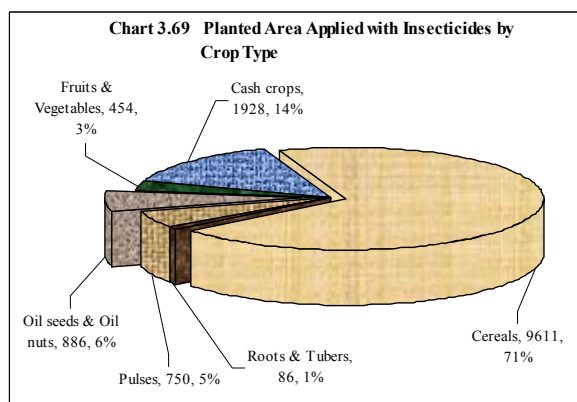


Insecticides are the most common pesticide in use in the region (58% of the total area applied with pesticides). This was followed by fungicides (29%) and herbicides (13%) (Chart 3.68).

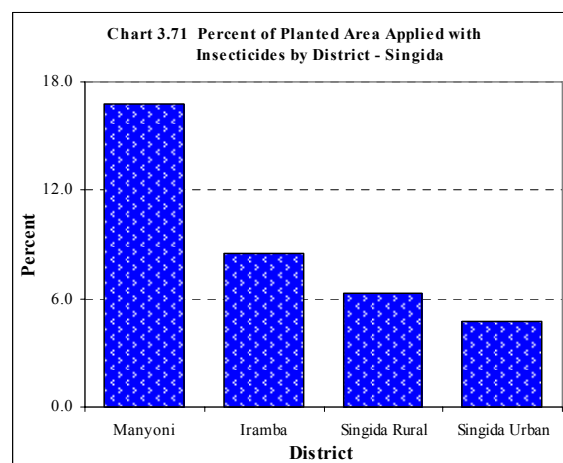


3.5.5.1 Insecticide Use

The planted area applied with insecticides was estimated at 13,763 ha which represented 4.2 percent of the total planted area for annual crops and vegetables.



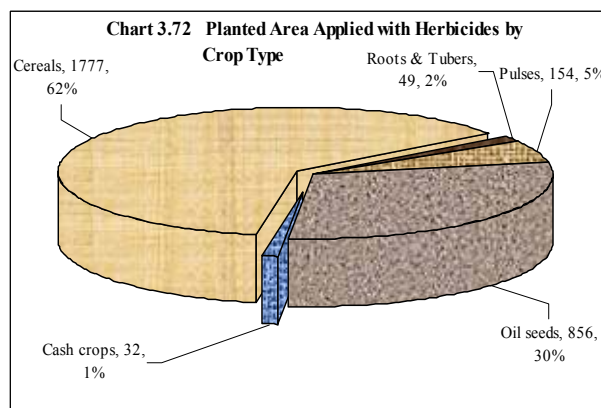
Cereals had the largest planted area applied with insecticides (9,611 ha, 70.1% of the total planted area with insecticides) followed by cash crops (1,928 ha, 14.1%), oil seeds and oil nuts (886 ha, 6.5%), pulses (750 ha, 5.5%), fruit and vegetable (454 ha, 3.3%) and roots and tubers (86 ha, 0.6%) (Chart 3.69). However, the percent of insecticides used in cash crops and fruits and vegetables is much greater than in other crop types (86.6 and 36.4% respectively), while only 1.7 percent of oil seed crops were applied with insecticides (Chart 3.70).



Manyoni had the highest percent of planted area with insecticides (16.7% of the total planted area with annual crops in the district). This was followed by Iramba (8.5%), Singida Rural (6.3%) and Singida Urban (4.7%) (Chart 3.71).

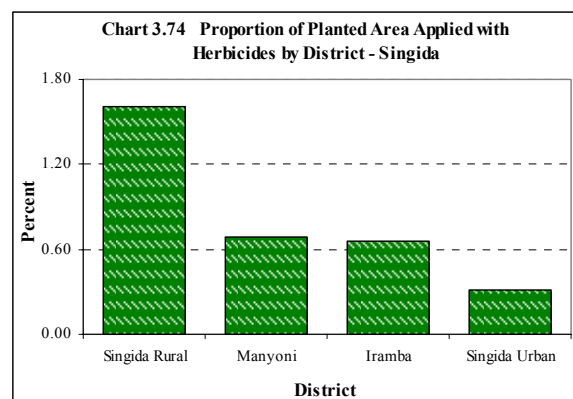
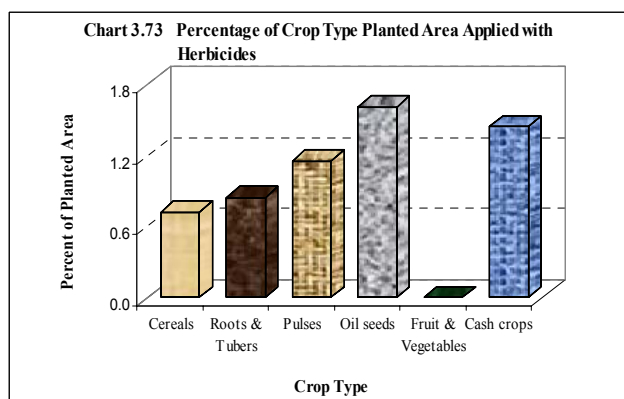
3.5.5.2 Herbicide Use

The planted area applied with herbicides was 2,868 ha which represented 0.9 percent of the total planted area annual crops and vegetables. Cereals had the largest planted area applied with herbicides (1,777 ha, 62%) followed by oil seeds (856 ha, 30%), pulses (154 ha, 5%), and roots and tubers (49 ha, 2%) and cash crops (32ha, 1%) There was no herbicide use in fruit and vegetables (Chart 3.72).



However, the percent of herbicide use on oil seeds, cash crops and pulses was much greater than in other crop types (1.6%, 1.4% and 1.2% respectively) while only 0.7 percent of cereals were applied with herbicides (Chart 3.73).

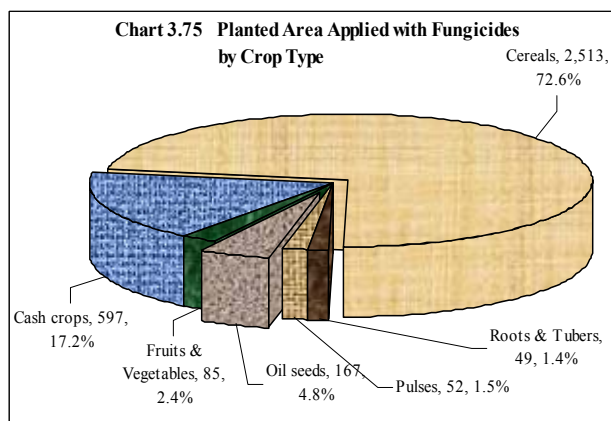
The top six annual crops with highest percentage use of herbicides in terms of planted area were sunflower (28.0%), maize (22.2%), bulrush millet (21.8%), sorghum (16.6%), beans (5.4%) and groundnuts (1.8%).



Singida Rural had the highest percent of planted area with herbicides (1.61% of the total planted area with annual crops in the district). This was followed by Manyoni (0.69%), Iramba (0.66%) and Singida Urban (0.32%) (Chart 3.74).

3.5.5.3 Fungicide Use

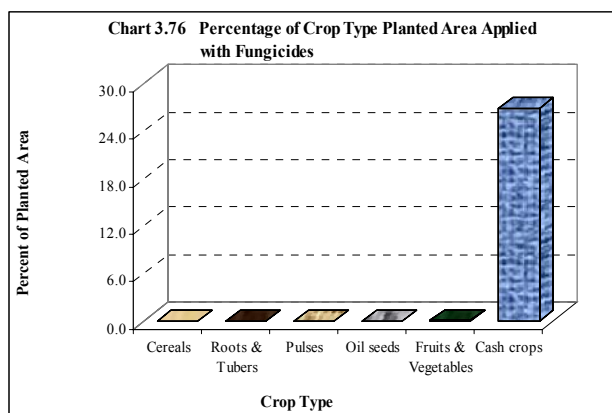
The planted area applied with fungicides was 3,487 ha which represented 1.1 percent of the total planted area for annual crops and vegetables. Cereals had the planted area applied with fungicide (2,513 ha, 72.6%) followed by cash crops (597 ha, 17.2%), oil seeds (167 ha, 4.8%), fruit and vegetables (85 ha, 2.4%), pulses (52ha, 1.5%) and roots and tubers (49 ha, 1.4%) (Chart 3.75)



However, the percentage use of fungicide was mainly in cash crops (26.8%) (Chart 3.76).

Annual crops with more than 20 percent fungicide use were sorghum (27%) and maize (26%)

Manyoni had the highest percent of planted area with fungicides (4.6% of the total planted area with annual crops in the district). This was followed by Singida Rural (1.9%), Iramba (1.2%) and Singida Urban (1.0%) (Chart 3.77).

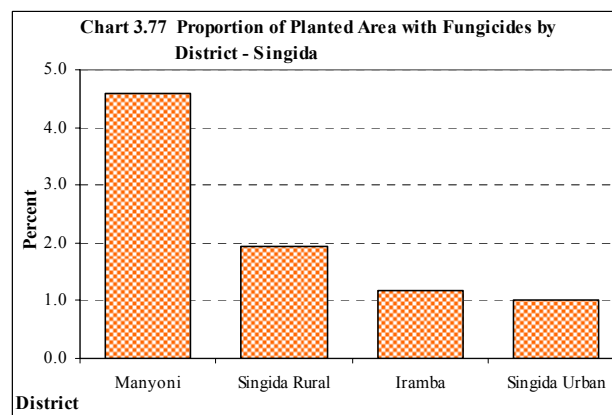


3.5.6 Harvesting Methods

The main harvesting method for cereals was reported to be by hand. Very small amounts of maize were harvested by draft animals (0.26%) All other cereals and annual crops were harvested by hand.

3.5.7 Threshing Methods

Hand threshing was the most common method used, with 85.4 percent of the total area planted with cereals during the long rainy season was threshed by hand. Draft animals, human powered tools and engine driven machines were only used on crops harvested from 0.2 percent, 5.2 percent and 0.6 percent of the total planted area respectively. The remaining 8.6 percent was under not applicable.

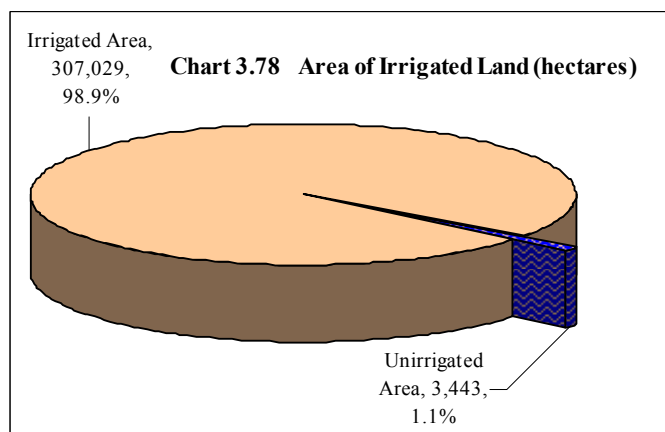


3.6 Irrigation

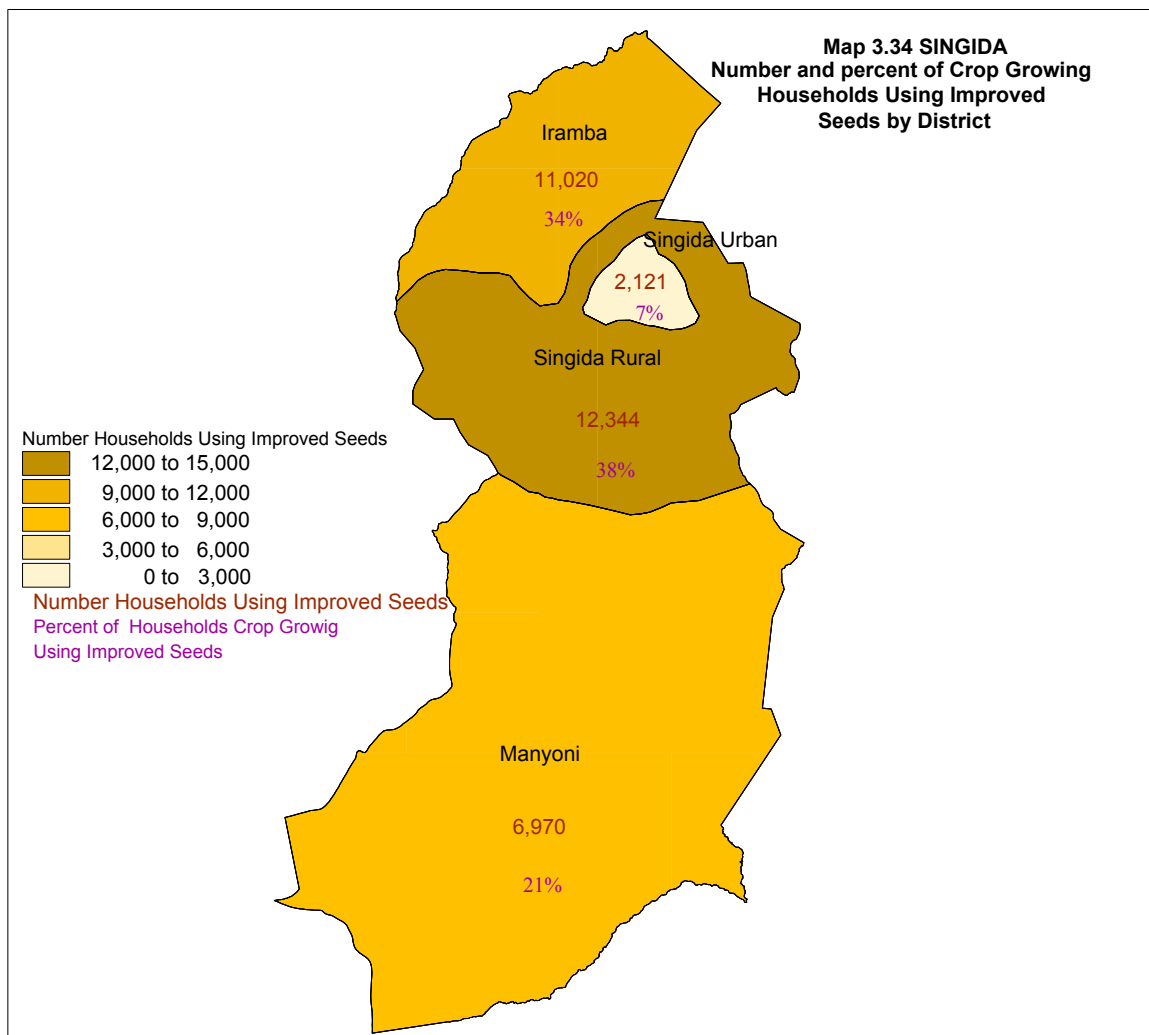
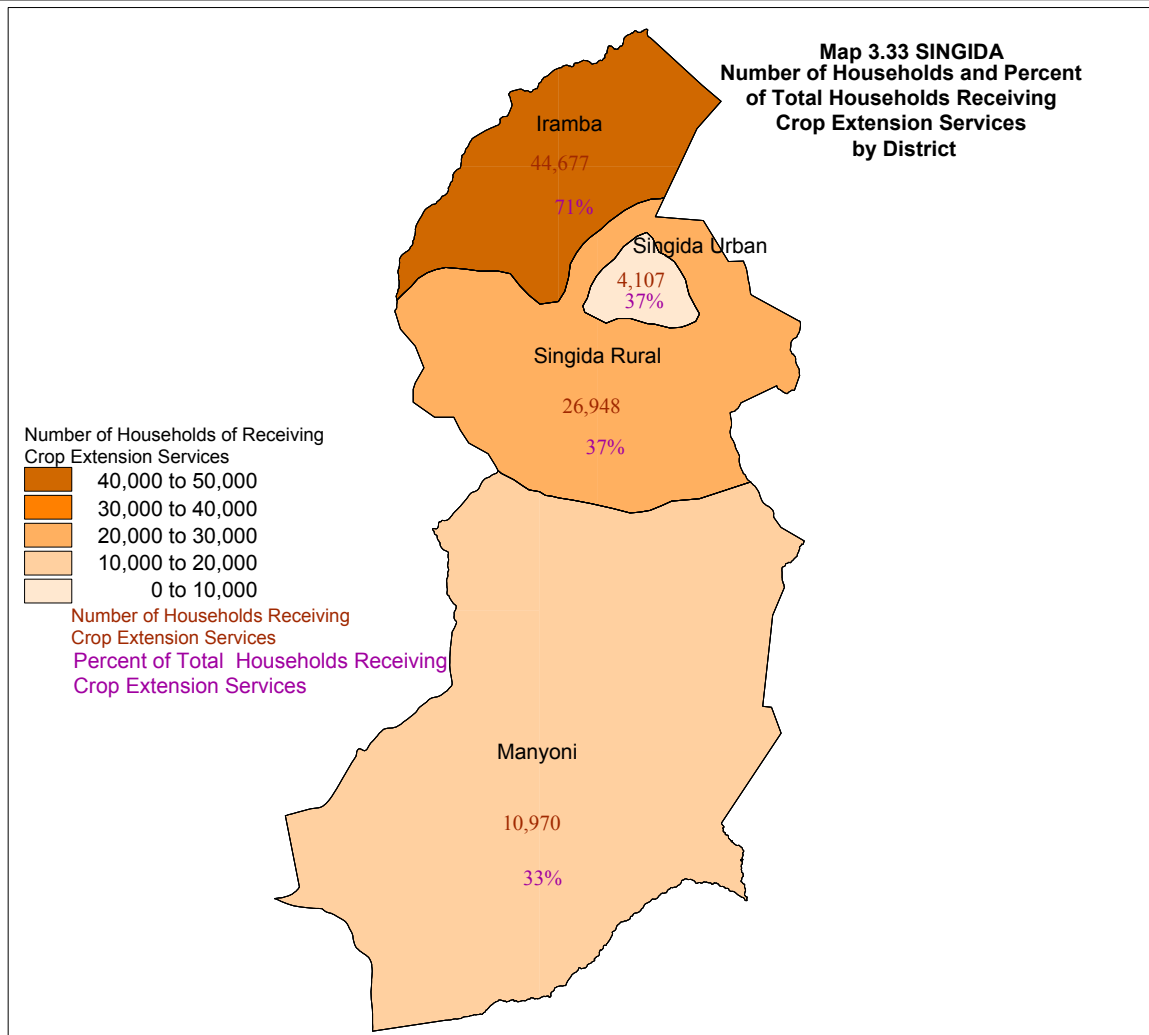
Water is the limiting factor to crop production in the majority of areas in Tanzania and without water most other agricultural practices applied to crops do not result in significant increases in yields. This section deals with the area under irrigation for different crops and the means by which water was extracted from the source and applied to the field.

3.6.1 Area Planted with Annual Crops and Under Irrigation

In Singida region, the area of annual crops under irrigation was 3,443 ha representing 1.1 percent of the total area planted (Chart 3.78).



The district with the largest planted area under irrigation with annual crops was Manyoni (4,202 ha, 35% of the total irrigated planted area with annual crops in the region). This is closely followed by Singida Rural with (3,916 ha, 32%), Iramba (2,867 ha, 24%) and Singida Urban (1,113 ha, 9%). When expressed as a percentage of the total area planted in



each district, Singida Urban had the highest with 10.2 percent of the planted area in the district under irrigation. This is followed by Manyoni (6.7%), Singida Rural (3.4%) and Iramba (2.2%) (Chart 3.79 and Map 3.30).

Of all the different crops and in terms of proportion of the irrigated planted area, cabbage, amaranths, okra, spinach, bitter Aubergine, chillies and mung beans were the most irrigated crops with 100 percent irrigation followed by tomatoes (72%).

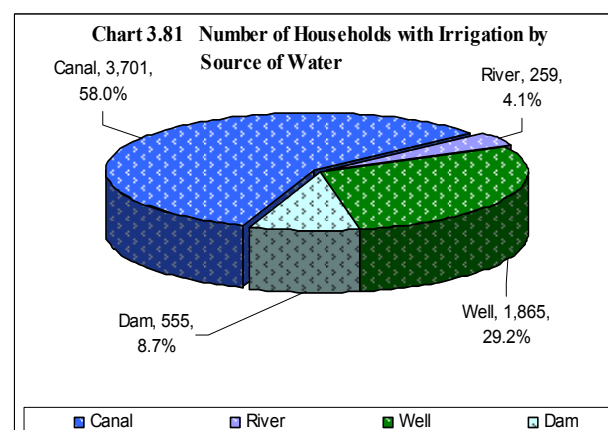
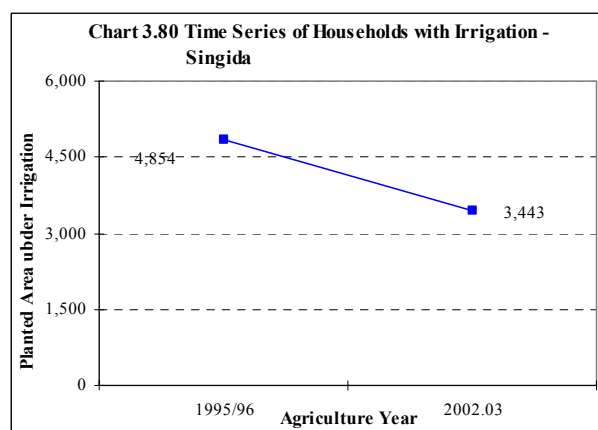
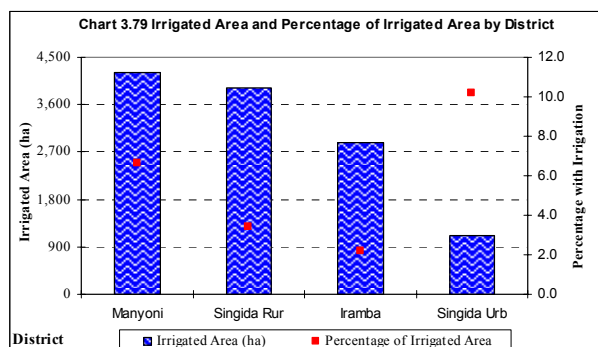
In terms of crop type, the area under irrigation with cereals was 3,512 ha (60% of the total area under irrigation), followed by roots and tubers with 1,467 ha (25.1%), oil seeds and oil nuts (459 ha, 7.8%), fruit and vegetables (368 ha, 6.3%) and pulses (44 ha, 0.8%). All of the irrigation on cereals was applied to maize and paddy.

The area of fruit and vegetables under irrigation was 368 ha which represents 29 percent of the total planted area with fruits and vegetables. Tomatoes, onion, and cabbages were the most irrigated crops. Irrigation was not used on annual cash crops.

The Planted area with irrigation in Singida region appears to have decreased over the 10 year intercensal period from 4,854 to 3,443 hectares. This may not be statically significant due to the small number of households sampled with irrigation (Chart 3.80).

3.6.2 Sources of Water Used for Irrigation

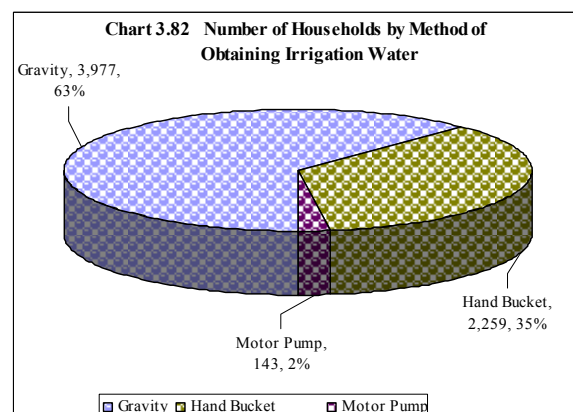
The main source of water used for irrigation was from canals (58% of households with irrigation). This was followed by well (29.2%), dam (8.7%) and river (4.1%) (Chart 3.81). Most households using irrigation in Singida Urban and Singida Rural get their irrigation water from well (73% and 54% respectively)



3.6.3 Methods of Obtaining Water for Irrigation

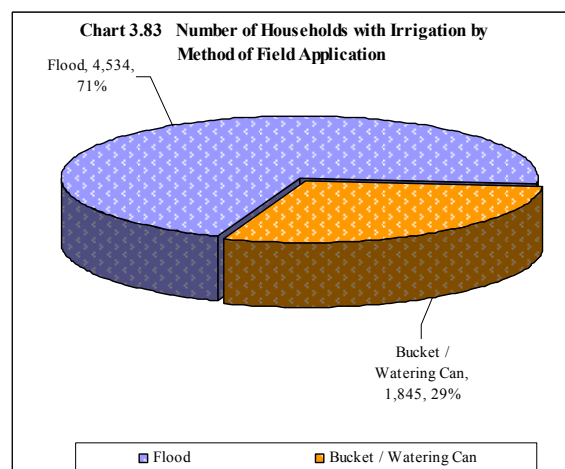
Gravity was the most common means of getting water for irrigation with 63 percent of households using this method. This was followed by hand bucket with 35 percent of households and motor pump (2%) (Chart 3.82).

Gravity was used by most households with irrigation in Manyoni (84%), followed by Singida Rural (12%) and Singida Urban (3%). Hand bucket was more common in Singida Rural with 37 percent of households using the method to get water for irrigation, followed by Singida Urban (36%), Manyoni (14%) and Iramba (13%). Motor pump was only used in Iramba district



3.6.4 Methods of Water Application

Most households used flood irrigation (71% of households using irrigation) as a method of field application and bucket/watering can (29%). Other methods of field application for irrigation were not used in the region. (Chart 3.83)



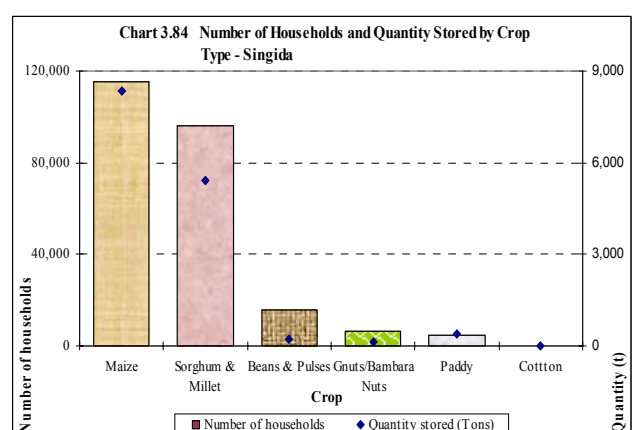
3.7 Crop Storage, Processing and Marketing

3.7.1 Crop Storage

Crop storage means keeping a crop for a certain period of time as food for the household, in order to sell at higher prices or as seeds for planting in the following season.

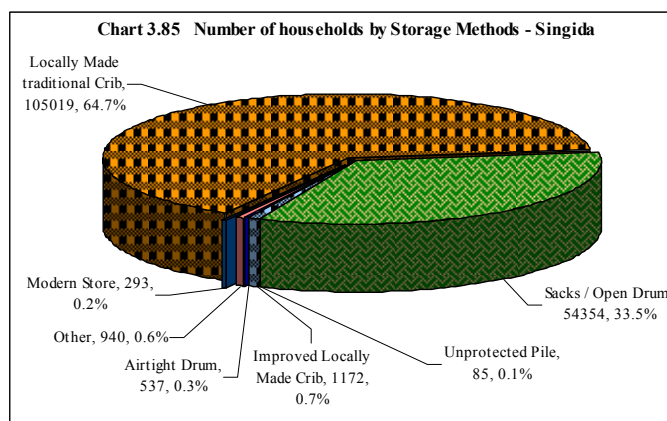
The results for Singida region show that there were 179,391 crop growing households (14.7% of the total crop growing households) that stored various agricultural products in the region.

The most important stored crop was maize with 115,361 households storing 8,366 tonnes as of 1st January 2004. This was followed by sorghum and millets (96,374 households, 5,413t), beans and pulses (15,765 households, 230t) and groundnuts/bambaranuts (4,894 households, 119t) and paddy (4,894 household, 387t). Other crops were stored in very small amounts.



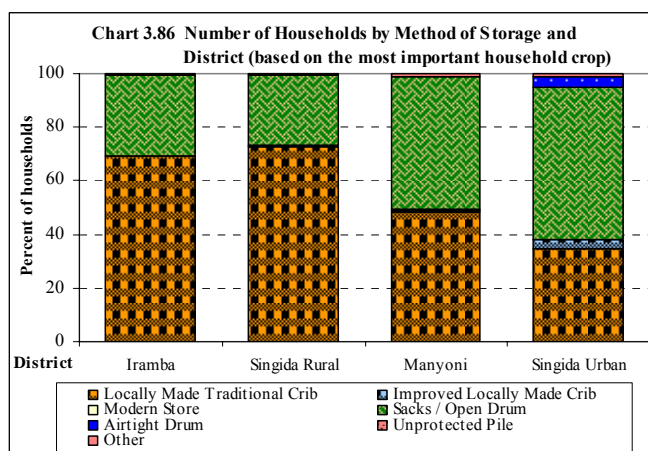
3.7.1.1 Methods of Storage

The region had 105,564 crop growing households storing their produce in locally made traditional structures (64.7% of households that stored crops in the region). The number of households that stored their produce in sacks/open drum was 54,162 (33.5%). This was followed by improved locally made crib (1,172 households, 0.7%), other types of storage (940 households, 0.6%), air tight drums 537 households, 0.3%), modern store (293hh, 0.2%) and unprotected pile (85 households, 0.1%).



Locally made traditional structures were the dominant storage methods in all districts, with the highest percent of households in Singida Rural using this method (73% of the total number of households storing crop products). This is followed by Iramba (69%), Manyoni (48%) and Singida Urban (35%) (Chart 3.86)

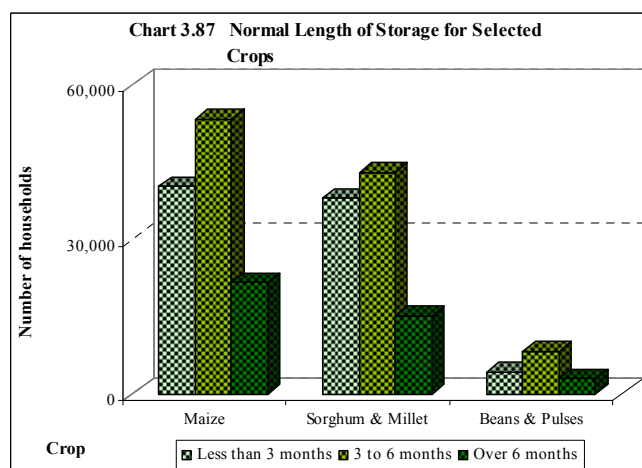
The highest percent of households using sacks and open drum was in Singida Urban and Manyoni districts (57% and 49% of the total number of households storing crops respectively), followed by Iramba (30%) and Singida Rural (26%).



3.7.1.2 Duration of Storage

Most households (46% of the households storing crops) stored their produce for a period of 3 to 6 months followed by those that stored for a period of less than 3 months. The minority of households stored their crop for a period of over 6 months (17%).

Most households that stored pulses stored for a period of between 3 to 6 months followed by less than 3 months. A small number of households stored pulses for the period of over 6 months (Chart 3.87).



The proportion of households that stored their produce for the duration of 3 to 6 months was highest in Iramba district (51%) followed by Manyoni (46%), Singida Urban (45%) and Singida Rural (42%) (Map 3.31)

District comparison of duration of storage cannot be done for all crops combined. However, the analysis has been done for maize only as it is the most commonly stored crop. In general, quantity stored was related to the quantity produced. Districts with greater production had a higher percent of their crop stored as on 1st October 2003 (Chart 3.88). However, households in Iramba district stored relatively little maize in comparison to the quantity produced indicating that the quantity stored was determined by the food and seed requirement of the household and not to sell during the “off-season” when the farm gate price of maize is higher.

3.7.1.3 Purposes of Storage

Subsistence food crops (maize, paddy, sorghum and millet, beans and pulses) are mainly stored for household consumption. The percent of households that stored maize for household consumption as the main purpose of storage was 97.7 percent followed by seed for planting (Chart 3.89).

3.7.1.4 The Magnitude of Storage Loss

About 86.1 percent of households that stored crops had little or no loss, followed by household with up to a quarter loss (7.9%), between a quarter and a half (5.2%) and over a half loss (0.8%).

The proportion of households that reported a loss of more than a quarter was greatest for maize (9.6% of the total number of households that stored crops). This was followed by sorghum and millet (7.1%) and beans and pulses (1.3%). Most households storing groundnuts and bambara nuts had no storage loss (100%) (Table 3.11).

3.7.2 Agro processing and By-products

Agro processing refers to a process that converts a crop product from one form to another form in order to add value or increase the palatability of the product. Agro-processing was practiced in most crop growing households in Singida region (167,351 households, 93% of the total crop growing households) (Chart 3.90).

The percent of households processing crops was very high in all the districts (above 80%) (Chart 3.91)

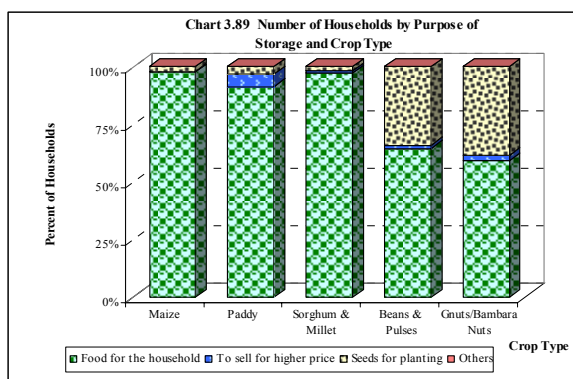
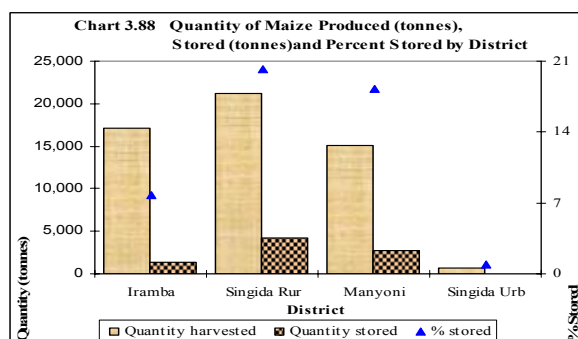
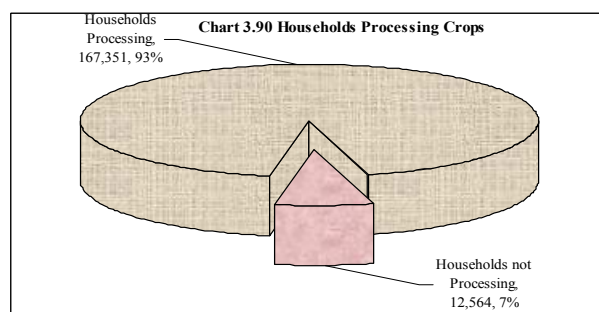
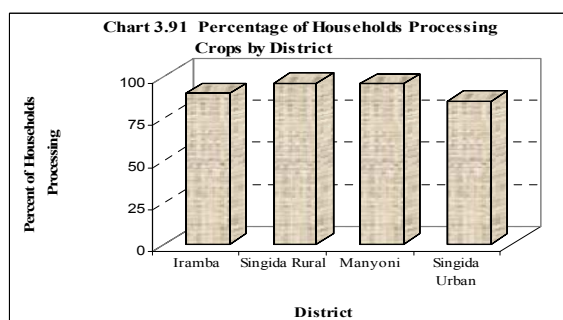


Table 3.11: Number of Households Storing Crops by Estimated Storage Loss and District

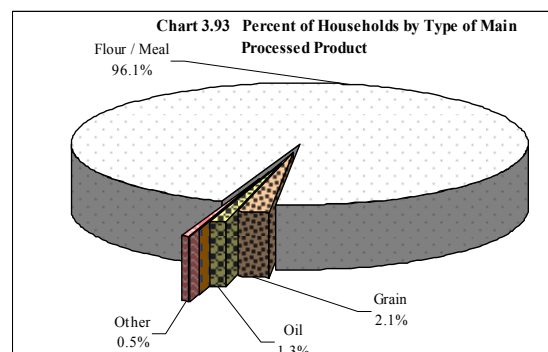
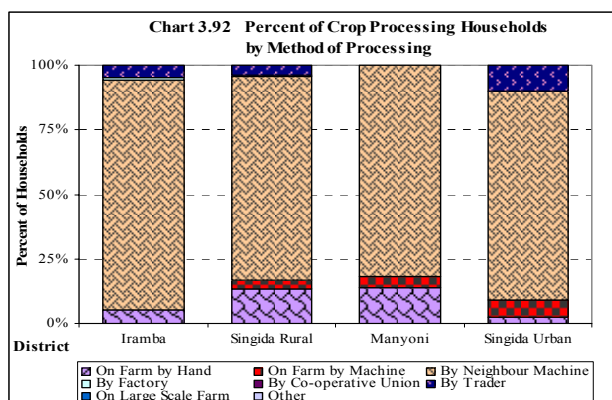
District	Estimate Storage Loss				Total
	Little or no Loss	Up to 1/4 Loss	Between 1/4 and 1/2 Loss	Over 1/2 Loss	
Iramba	65,209	5,262	8,832	645	79,948
Singida R	86,432	10,491	2,444	617	99,984
Manyoni	44,612	1,840	950	250	47,652
Singida U	11,100	539	128	42	11,809
Total	207,354	18,133	12,354	1,555	239,396



3.7.2.1 Processing Methods

Most crop processing households processed their crops using neighbour's machines representing 83 percent (138,352 households). This was followed by those processing on-farm by hand (17,013 households, 10%), trader (6,417 households, 4%) and on-farm by machine (4,468 households, 3%). The remaining methods of processing were used by very few households (less than 1%).

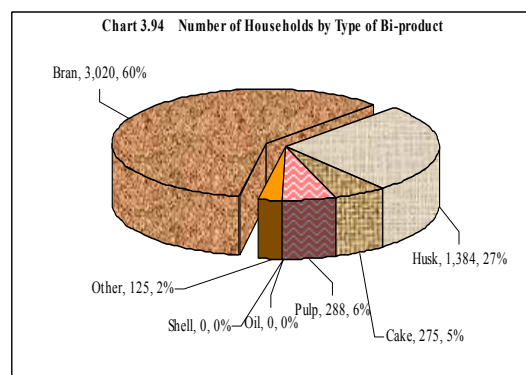
Although processing by neighbours machine was the most common processing method in all districts in Singida region, however district differences existed. Singida Rural has a higher percent of hand processing than other districts (56%), followed by Manyoni (26%), Iramba (17%) and Singida Urban (1%). Processing by trader was more common in Singida Rural and Iramba (44% and 42% respectively), whilst processing on farm by machine was more prevalent in Singida Rural, Manyoni and Singida Urban (Chart 3.92).



3.7.2.2 Main Agro-processing Products

Two types of products can be produced from agro-processing namely, main product and by-product. The main product is the major product after processing and the by-product is secondary after processing. For example the main product after processing maize is normally flour whilst the bi-product is normally the bran.

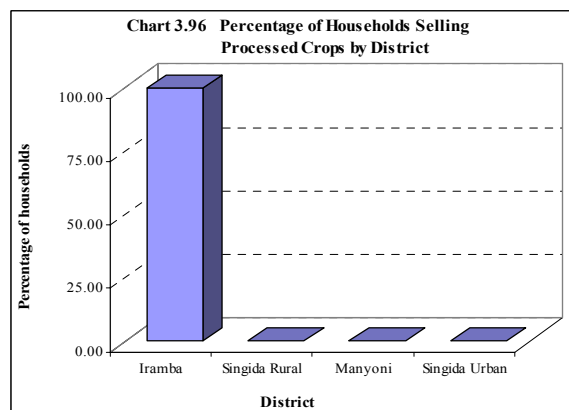
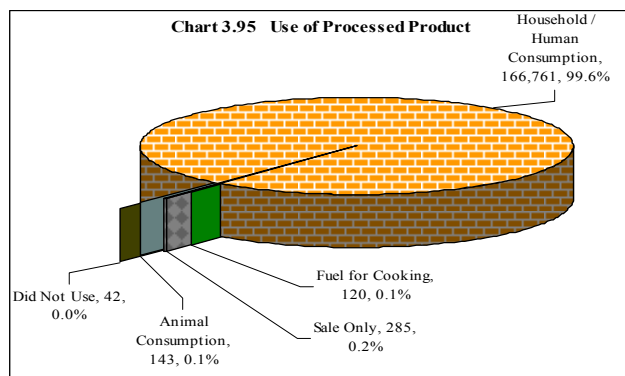
The main processed product was flour/meal with 160,806 households processing crops into flour (96.1%) followed by grain with 3,473 households (2.1%). The remaining products were produced by a small number of households (Chart 3.93).



The number of households producing by-products accounted for 20.6 percent of the households processing crops. The most common by-product produced by crop processing households was husk with bran 3,020 with households (60%) followed by husk (1,384 households, 27%), pulp (288 households, 6%) and cake (275 households, 5%). The remaining by-products were produced by a small number of households (Chart 3.94).

3.7.2.3 Main Use of Primary Processed Products

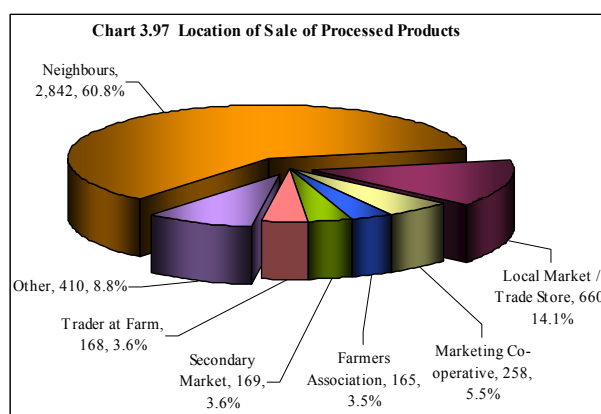
Primary processed products were used for households or human consumption, fuel for cooking, for selling and for animal consumption. The most important use was for household/human consumption which represented 99.6 percent of the total households that used primary processed product (Chart 3.95). Singida Rural was the only district that used primary products as fuel for cooking.



Out of 167,351 households that sold processed products, 70,259 were from Singida Rural (42% of the total number of households selling processed products in the region), followed by Iramba with 56,039 households (33.5%), Manyoni with 31,583 households (18.9%) and Singida Urban with 9,469 households (5.7%). In Singida region, Iramba was the only district that sold processed products (Chart 3.96)

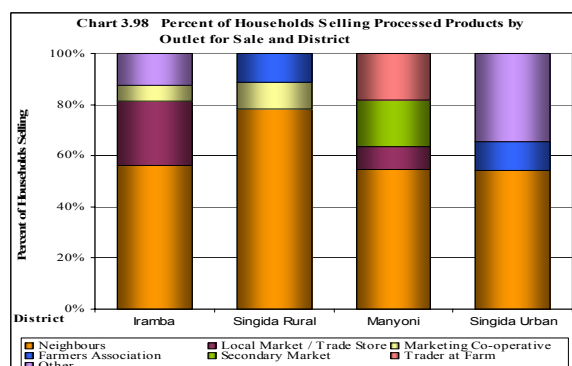
3.7.2.4 Outlets for Sale of Processed Products

Most households that sold processed products sold to neighbours (2,842 households, 60.8% of households that sold crops). This was followed by selling to local market/trade store (660 households, 14.1%), market cooperative (258 households, 5.5%), secondary market (169 households, 3.6%), trade at farm (168 households, 3.6%) and farmers association (165 households, 3.5%) (Chart 3.97).



There are large differences between districts in the proportion of households selling processed products to neighbours with Singida Rural district having the largest percent of households in the district selling to neighbours (78%), whereas Singida Urban had only 54 percent. Iramba had a higher percent of households relying on local markets/trade stores than other outlets.

Compared to other districts, Manyoni had the highest percent of households selling processed products to traders at farm. In Singida Urban, the sale of processed produce to farmer associations was most prominent compared to other districts. The districts that had the highest proportion of households selling processed products to marketing cooperative were Singida Rural and Iramba.



3.7.3 Crop Marketing

The number of households that reported selling crops was 81,720 which represent 45 percent of the total number of crop growing households. The percent of crop growing households selling crops was highest in Manyoni (52%) followed by Singida Rural (50%), Iramba (40%) and Singida Urban (25%) (Chart 3.99 and Map 3.32).

3.7.3.1 Main Marketing Problems

Low price for agricultural produce was the main marketing problem reported by households (80.4% of crop growing households). Apart from low market prices, other problems were longer distances to the markets (6.9%), lack of transport (5%), lack of buyers (2.8%) and transport cost too high (2.3%). Other marketing problems are minor and represented less than 1 percent of the total reported problems.

3.7.3.2 Reasons for Not Selling Crops

The main reason for not selling crops was reported as “insufficient production to sell”, representing 95.8 percent of the smallholders. The remaining reasons for not selling are in such low numbers that it is not appropriate to rank their importance (Table 3.11).

3.8 Access to Crop Production Services

3.8.1 Access to Agricultural Credit

The census result shows that in Singida region very few agricultural households (2,698, 1.5%) accessed credit out of the total number of agricultural households, out of those that received credit 1,516 (56%) were male-headed households and 1,182 (44%) were female headed households. In Singida Urban district only female headed households got agricultural credit whereas in Singida rural district only male households accessed credit. In Manyoni and Iramba districts both male and female headed households accessed agricultural credit (Table 3.13).

3.8.1.1 Source of Agricultural Credit

The major agricultural credit providers in Singida region were cooperatives which provided credit to 1,124 agricultural households (41.6% of the total number of households that accessed credit), followed by family, friends and relatives (33.8%), saving and credit society (8%), Religious Organizations/Non Governmental Organizations/ projects (7.5%), private individual (4.6%) and commercial bank (4.5%) (Chart 3.101). Commercial banks were the sole source of credit in Singida Rural district and cooperatives were found in Manyoni district only. Private individual was a major credit provider in Singida

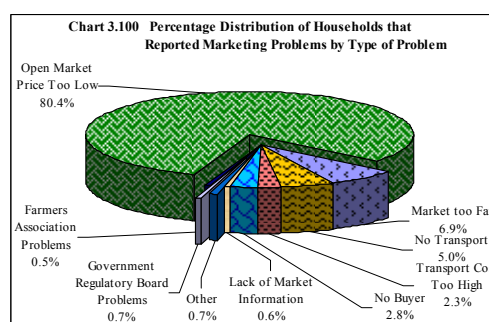
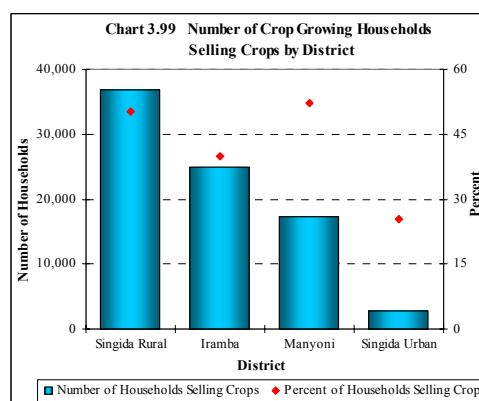


Table 3.12 Reasons for Not Selling Crop Produce

Main Reason	Household Number	%
Production Insufficient to Sell	101,154	95.8
Other	2,097	2.0
Price Too Low	1,243	1.2
Trade Union Problems	452	0.4
Co-operative Problems	263	0.2
Market Too Far	292	0.3
Government Regulatory Board Problems	125	0.1
Total	105,626	100.0

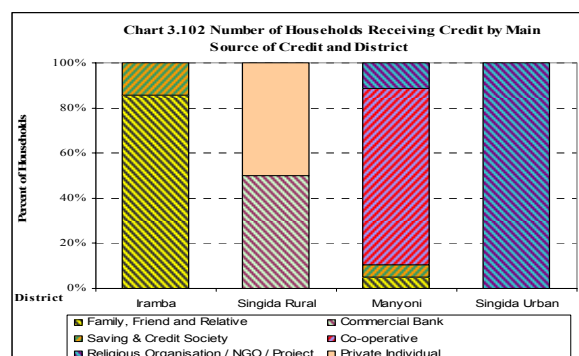
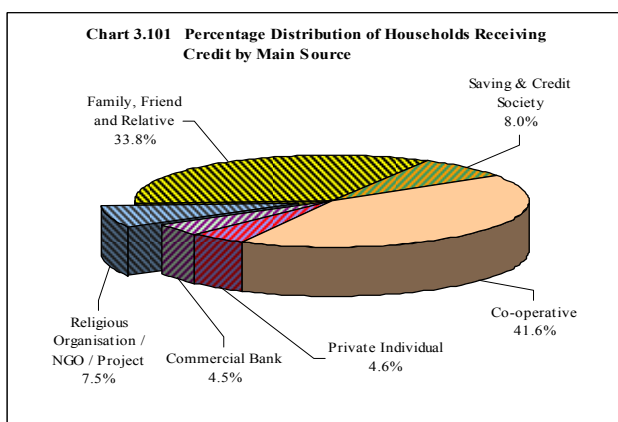
Table 3.13 Number of Agricultural Households that Received Credit by Sex of Household Head and District

District	Male		Female		Total
	Number	%	Number	%	
Iramba	548	56	428	44	976
Singida R	246	100	0	0	246
Manyoni	723	50	712	50	1,435
Singida U	0	0	42	100	42
Total	1,517	56	1,182	44	2,699

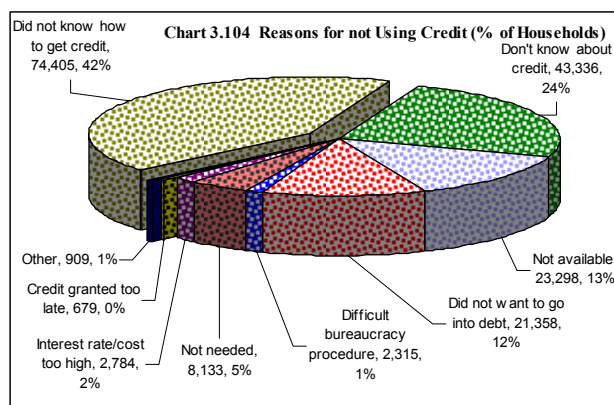
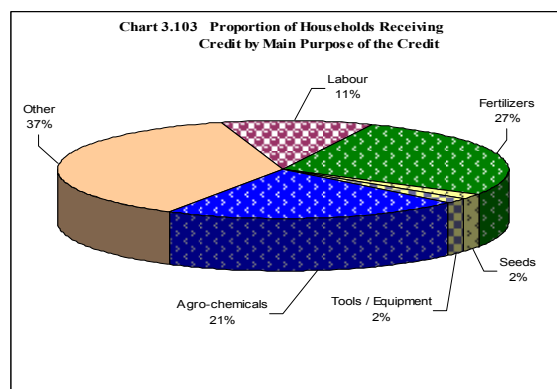
Rural district. Family, friends and relatives were more involved in funding a relatively great number of households in Iramba district (Chart 3.102).

3.8.1.2 Use of Agricultural Credit

The agricultural credit provided to agricultural households in the region was used as follows unspecified activities (37%), fertilizers (27%), agrochemicals (21%), labour (11%) and tools and equipment (2%). (Chart 3.103).



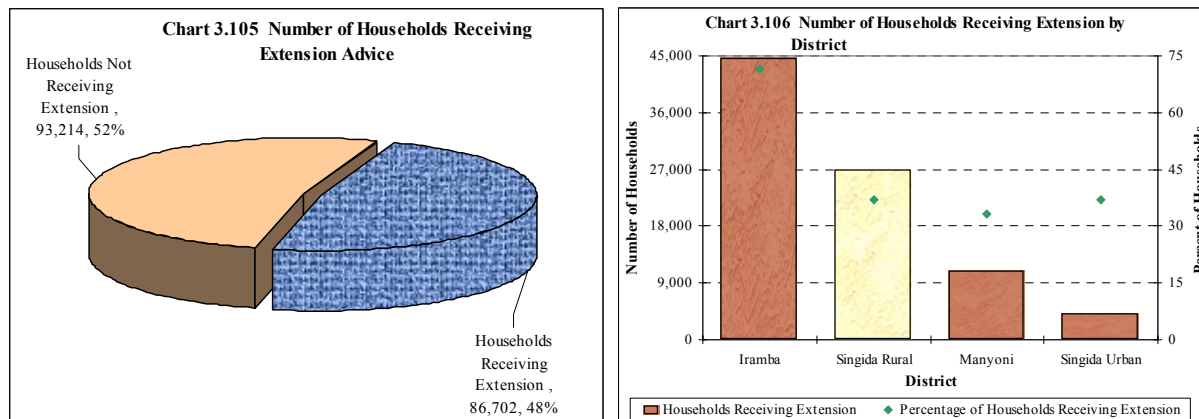
3.8.1.3 Reasons for Not Using Agricultural Credit



The main reason for not using agricultural credit as a source of finance was little credit awareness accounting to 66 percent of the agricultural households (“did not know how to get credit” and “don’t know about credit”). This was followed by households reporting the un-availability of credit (13%), followed by “not wanting to go into debt” (12%) The rest of the reasons were collectively 9 percent of the households.

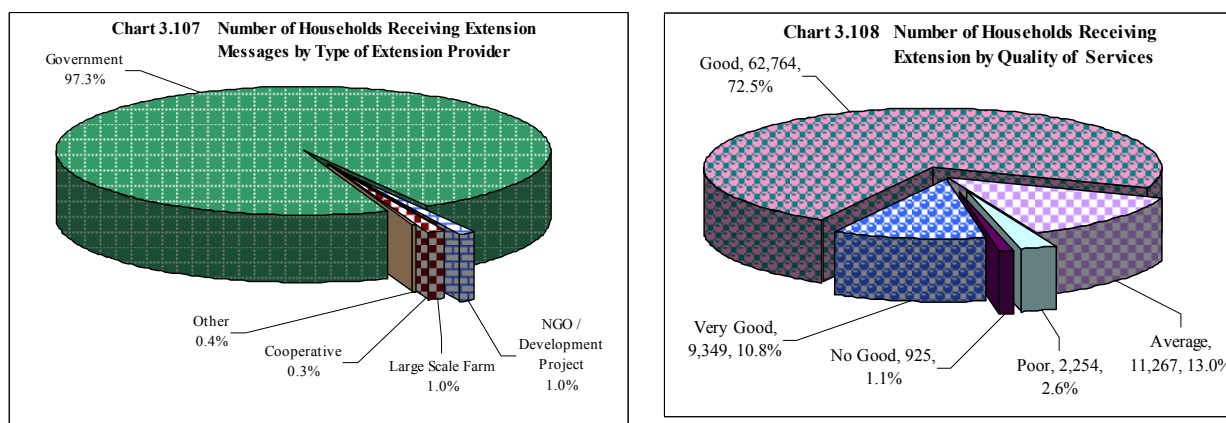
3.8.2 Crop Extension

The number of Agricultural households that received crop extension was 86,702 (48% of total crop growing households in the region) (Chart 3.105). Some districts have more access to extension services than others, with Iramba district having a relatively high proportion of households (71.5%) that received crop extension messages followed by Singida Urban (36.9%), Singida Rural (36.8%) and Manyoni (33.8%). (Chart 3.106 and Map 4.33)



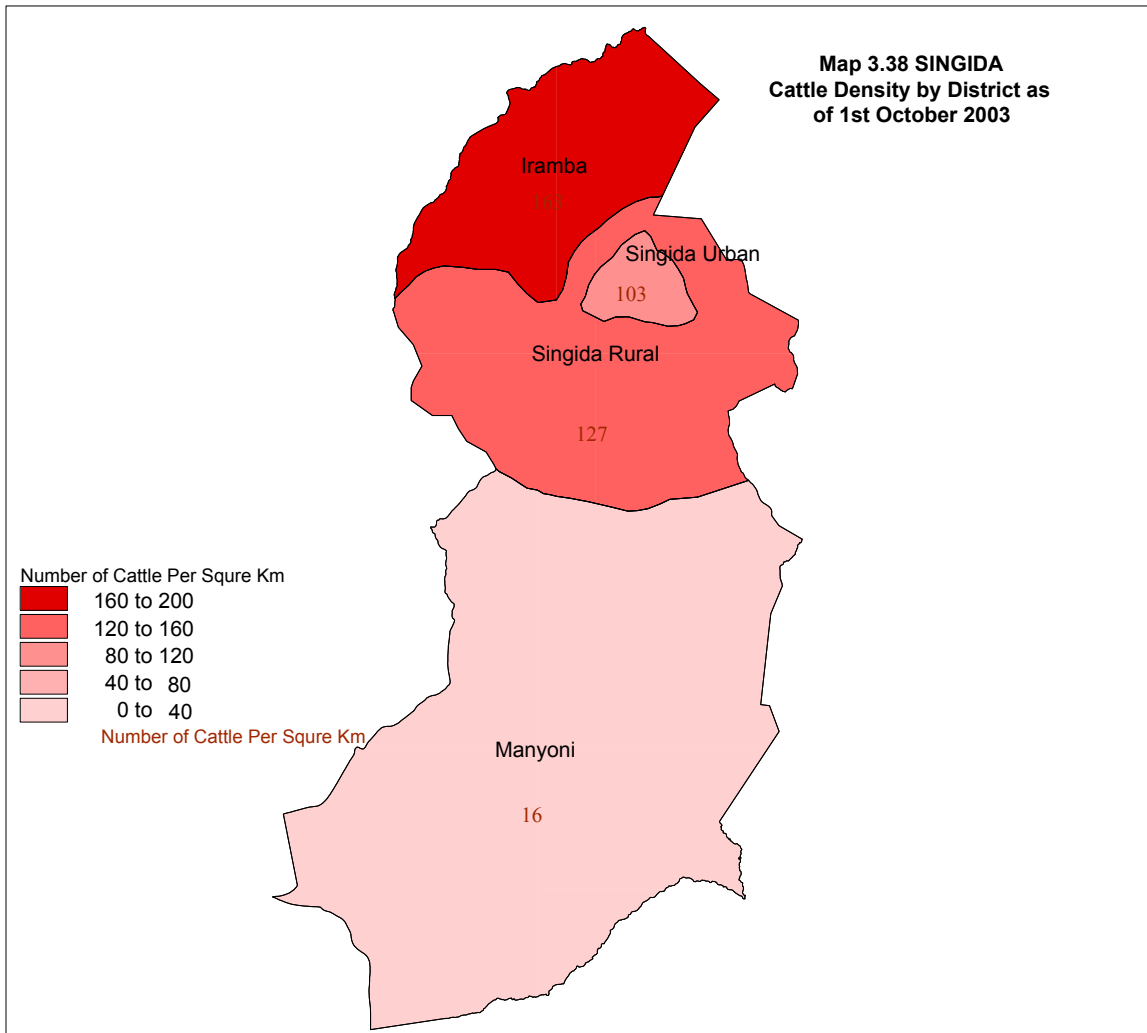
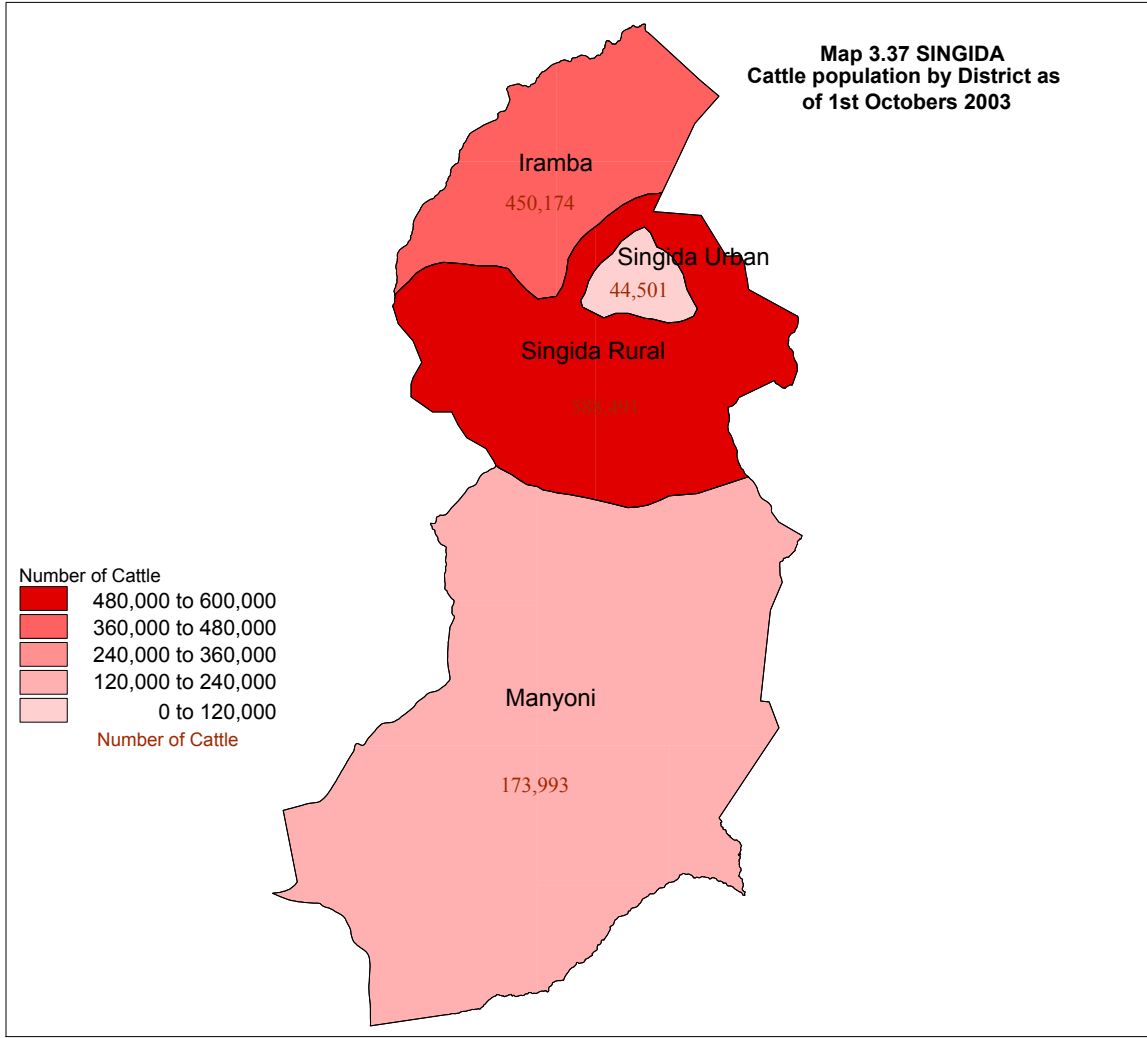
3.8.2.1 Sources of Crop Extension Messages

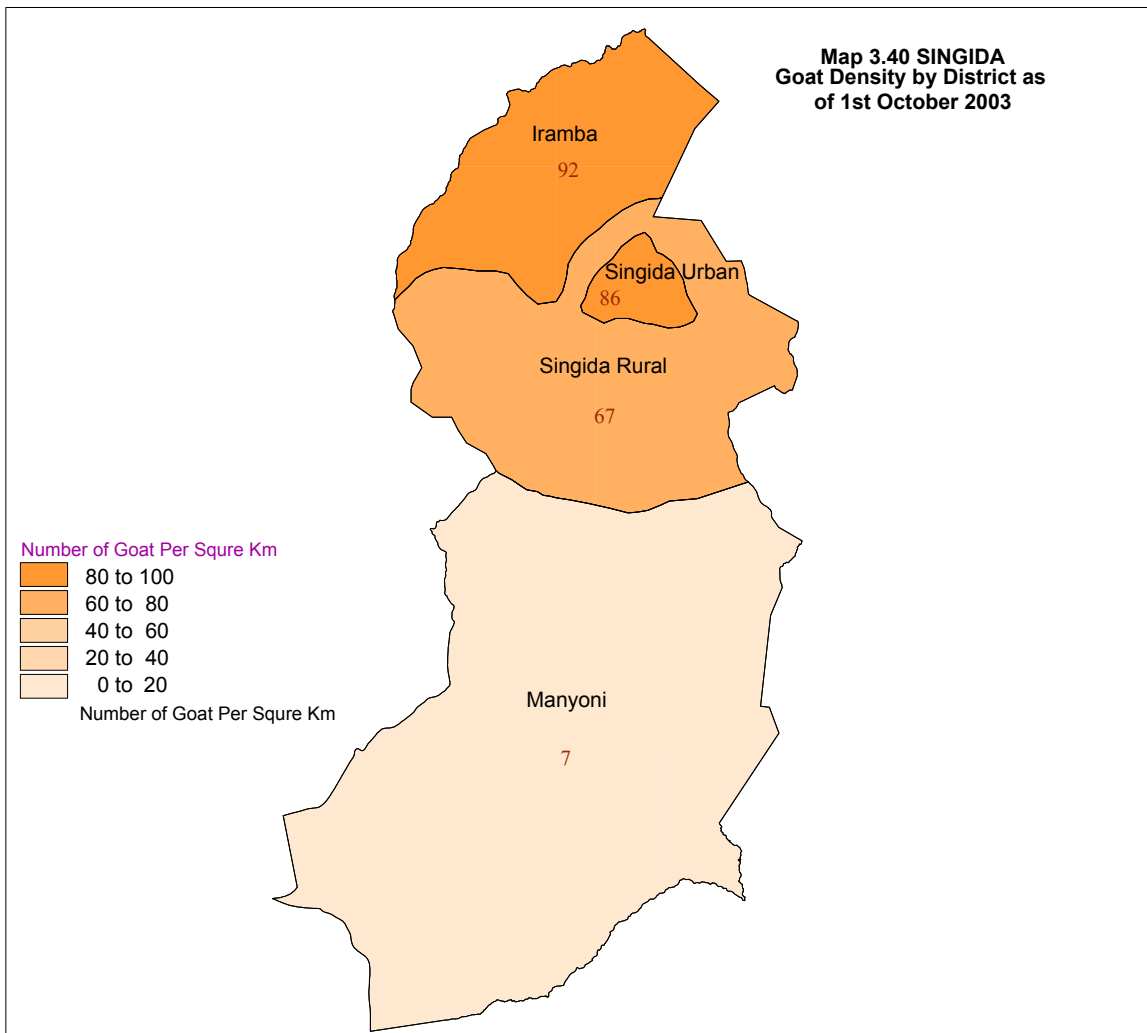
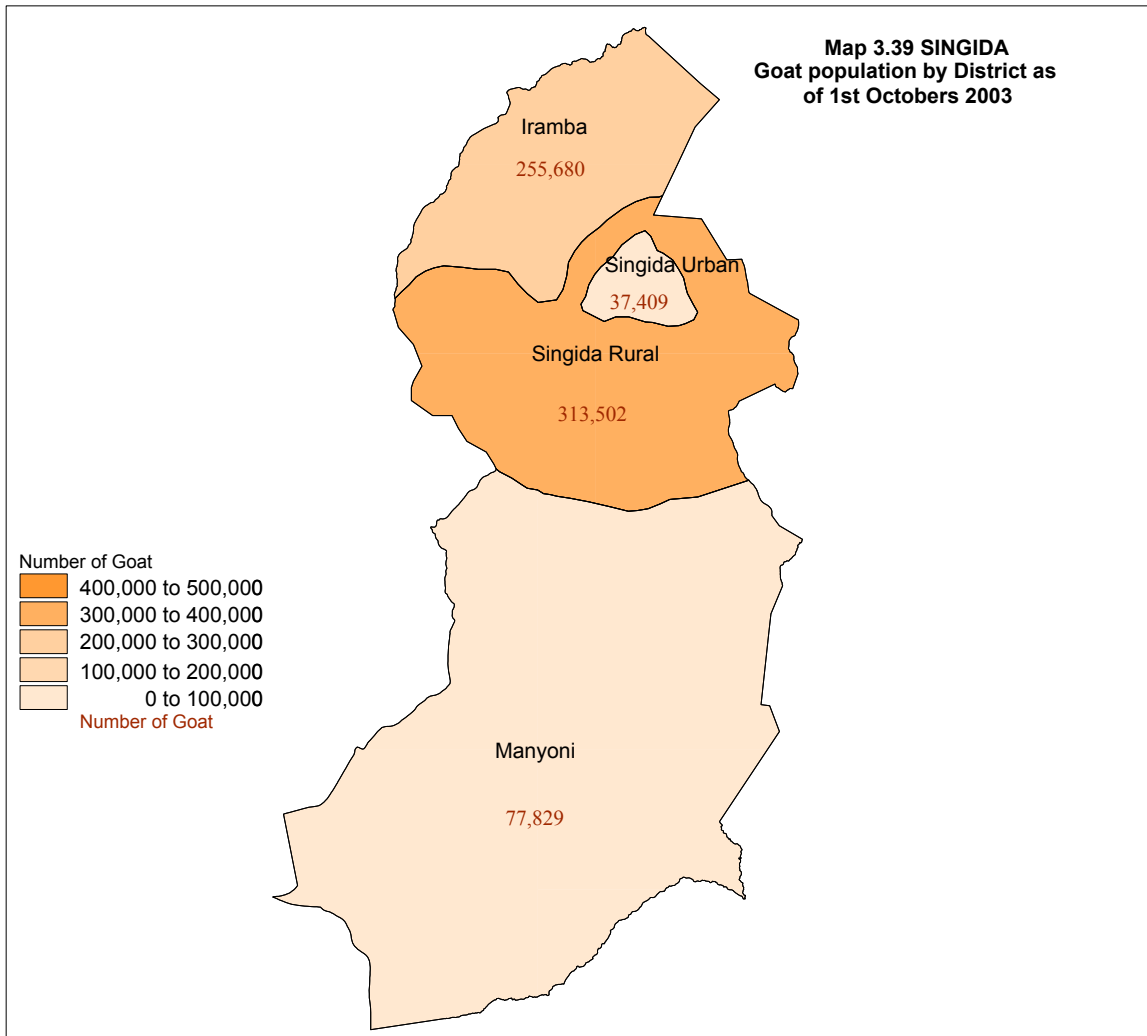
Of the households receiving extension advice the Government provided the greatest proportion (97.3%, 83,765 households). Large scale farm provided 1.0 percent, NGO/Development project 1 percent, cooperatives 0.3% and other providers 0.4 percent (Chart 3.107).



3.8.2.2 Quality of Extension

An assessment of the quality of extension indicates that 72.5 percent of the households receiving extension ranked the service as being good followed by average (13%), very good (10.8%), poor (2.6%) and no good (1.1%) (Chart 3.108). However, care should be exercised when making decisions on quality of extension and also other variables in the extension report as all the enumerators were extension agents and some degree of bias is expected.





3.9 Access to Inputs

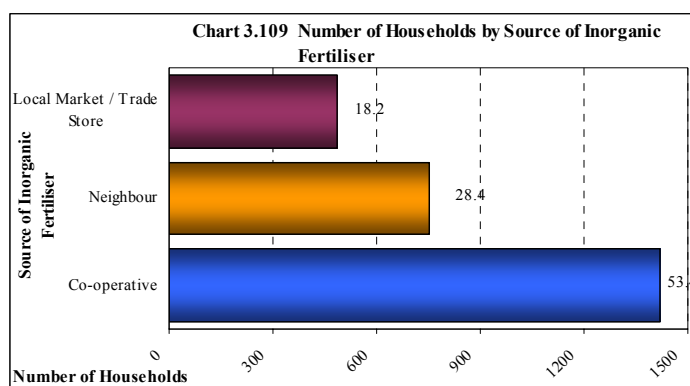
Access to inputs in this section refers to all crop growing households in Tanzania regardless of whether the household grew annual or permanent crops. In previous sections the reference was to annual crops only. Because of this, some of the figures presented in this section may be slightly different from those in the previous section (Section 3.5). Data on source of inputs is only found in this section and it applies to both annual and permanent crops.

Type of Input	Households With Access to Input		Households Without Access to Inputs	
	Number	%	Number	%
Farm Yard Manure	83,259	46	96,740	54
Improved Seeds	26,415	15	153,375	85
Pesticides/Fungicide	6,912	4	173,003	96
Compost	7,786	4	172,129	96
Inorganic Fertiliser	2,659	1	177,298	99
Herbicide	117	.06	179,799	100

A small number of households use inputs particularly the inputs that are not produced on the farm such as improved seeds, fungicides, inorganic fertiliser and herbicides. In Singida region farm yard manure was used by 83,259 households which represent 46 percent of the total number of crop growing households. This is followed by households using improved seeds (15%), compost (4%) fungicide (4%), inorganic fertiliser (1%), and herbicide (0.06%) (Table 2.14).

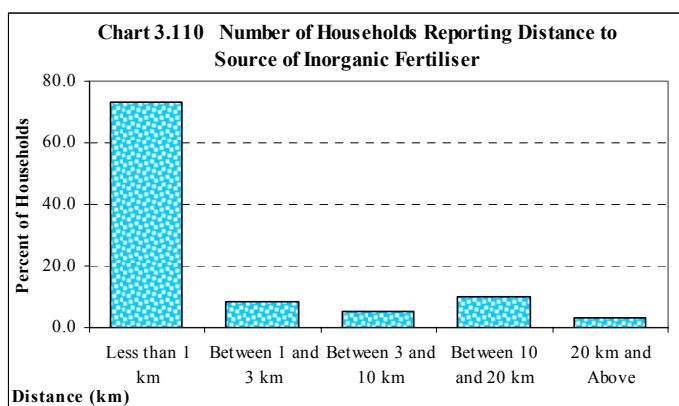
3.9.2 Inorganic Fertilisers

Smallholders that use inorganic fertiliser in Singida mostly purchase from cooperative (53.4% of the total number of inorganic fertiliser users) followed by neighbours (28.4%) and local market/trade store (18.2%) (Chart 3.109).



Access to inorganic fertiliser is mainly less than 10 km from the household with most households residing less than 1 km from the source (73%), followed by between 1 and 3 km (8%) and between 3 and 10 km (5%) (Chart 3.110). Due to the very small number of households using

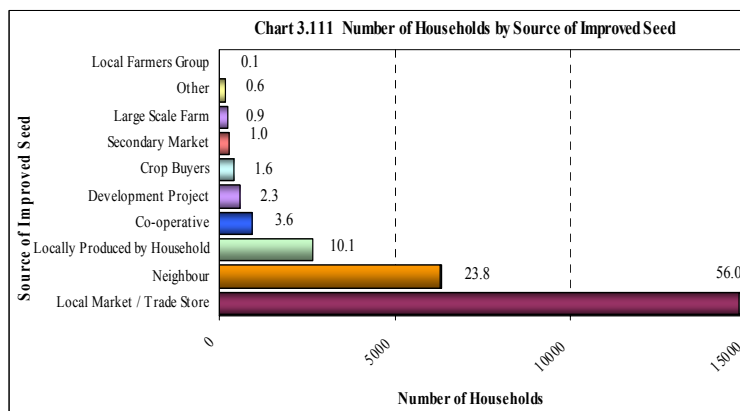
inorganic fertilisers coupled with the small number of households responding to “not available”(36%) as the reason for not using, it may be assumed that access to inorganic fertiliser is not the main reason for not using it. Other reasons such as cost are more important with 45 percent of households responding to cost factors as the main reason for not using inorganic fertilisers. In other words, it is assumed that if the cost was affordable the demand would be higher and access to inorganic fertiliser would be made more available.



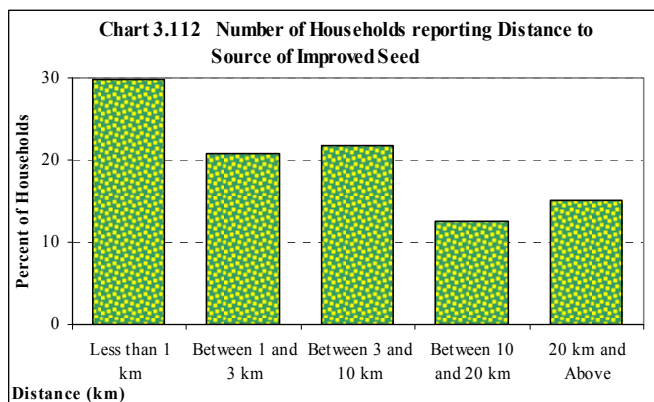
More smallholders use inorganic fertilisers in Manyoni than in other districts in Singida region (83% of households using inorganic fertilisers), followed by Iramba (10.8%), Singida rural (4.6%) and Singida Urban (1.6%).

3.9.3 Improved Seeds

The proportion of households that used improved seeds was 15 percent of the total number of crop growing households. Most of the improved seeds were from the local market/trade store (56%). Other less important sources of improved seed are from neighbours (23.8%), locally produced by household (10.1%). Only 0.9 percent of households using improved seeds obtain them from large scale farms (Chart 3.111).



Access to improved seed is better than access to chemical inputs with 46 percent of households obtaining the input within 1 km of the household (Chart 3.112). This is in line with the higher use of improved seed compared to other chemical inputs, which further supports the concept that it is not the availability that is the main issue in the use of inputs but rather other factors such as cost.



The district that used improved seeds are Singida Rural (38 percent of the total number of households used improved seeds), followed by Iramba (34%), Manyoni (21%) and Singida Urban (7). (Map 3.34).

3.9.4 Insecticides and Fungicide

Most smallholder households using insecticides and fungicides mainly purchase them from local markets/trade stores (53.1% of the total number of fungicide users). Other sources of insecticides/fungicides are of minor importance (Chart 3.113).

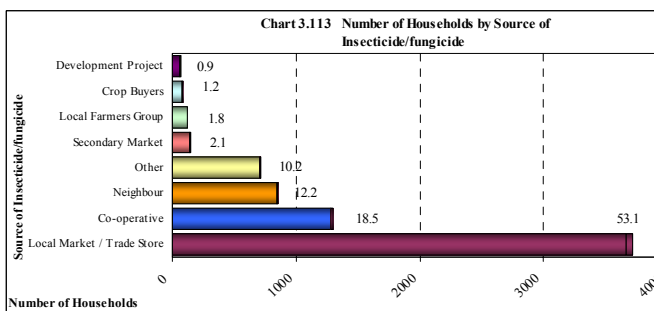
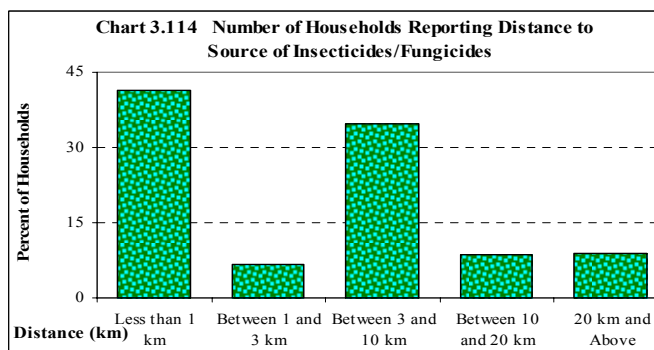


Chart 3.114 shows that there is no distinct pattern for the number of households with varying distances from the source of insecticide/fungicide. The small number of households using insecticides/fungicides coupled with the 17 percent of households responding to “not available” as the reason for not

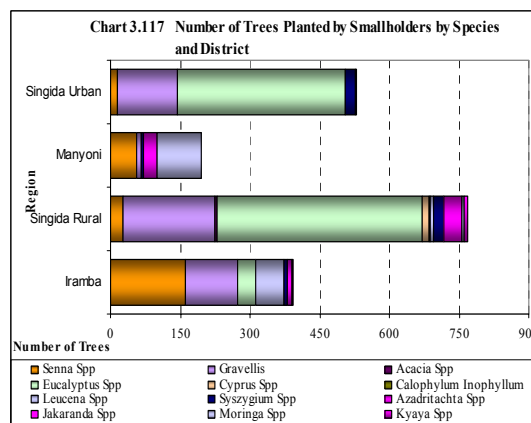
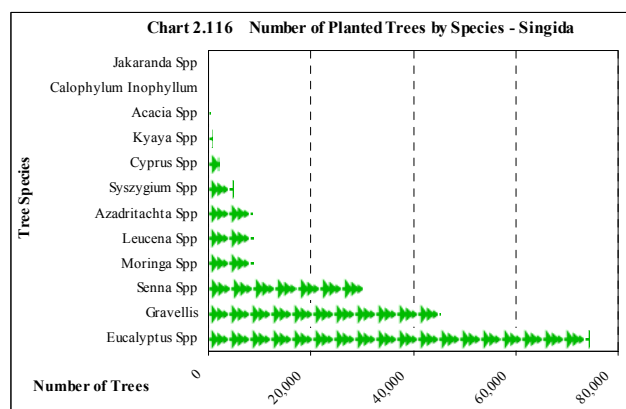
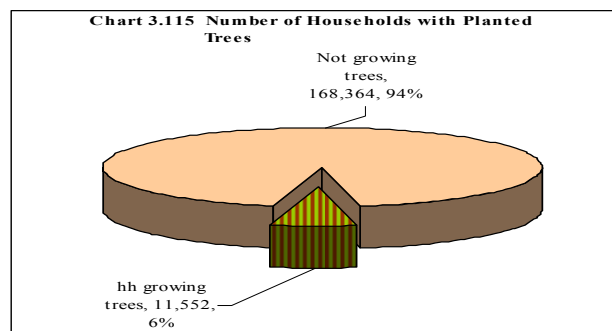


using it may be assumed that access is not the main reason for not using. Other reasons such as cost are more important with 77 percent of households responding to cost factors as the main reason for not using. In other words, it is assumed that if the cost was affordable, the demand would be higher and access to insecticides/fungicides would be made more available. Fungicide is used more in Manyoni district (42.7 percent of the total number of households used fungicides), followed by Singida Rural (32.8%), Iramba (22.8%) and Singida Urban (1.6%).

3.10 Tree Planting

The number of households involved in tree farming was 11,552 representing 6 percent of the total number of agriculture households (Chart 3.115).

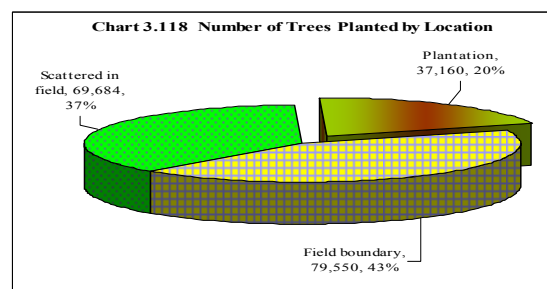
The number of trees planted by smallholders on their allotted land was 186,395 trees. The average number of trees planted per household planting trees was 18 trees.



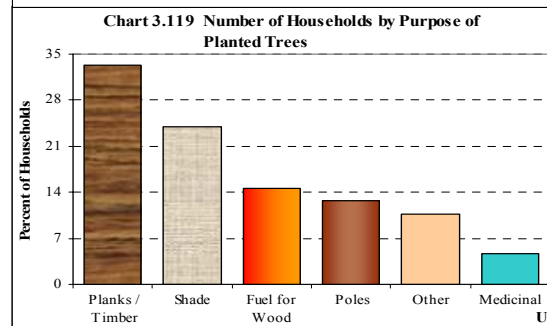
(45,536, 24.4%), then senna spp (30683, 16.5%) and Moringa (8,976 trees, 4.8%). The remaining trees species are planted in comparatively small numbers (Chart116.). Singida Rural has the largest number of smallholders with planted trees than any other district (50%) which is dominated by Eucalyptus species. This is followed by Iramba (29%) dominated by Gravellis species and to a lesser extent Leucena, then Singida Urban (12%) and Manyoni (9%) which are mainly planted with Eucalyptus and Senna species respectively (Chart 3.117 and Map 3.35.).

The main species planted by smallholders is Eucalyptus spp (74,654 trees, 40.16%), followed by Gravellis (45,536 trees, 24.4%), then senna spp (30683, 16.5%) and Moringa (8,976 trees, 4.8%). The remaining trees species are planted

Smallholders mostly plant trees on the boundary of fields. The proportion of households that plant on field boundaries is 61.1 percent, followed by scattered around fields (29.5%) and then trees planted in a plantation or coppice (9.4%) (Chart 3.118).



The main purpose of planting trees is to obtain planks/timber (31.9%). This is followed by shade (21.5%), wood for fuel (15.8%) and poles (12.7%) (Chart 3.119).



3.11 Irrigation and Erosion Control Facilities

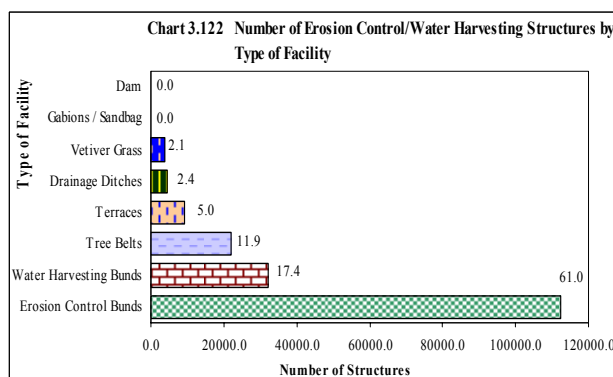
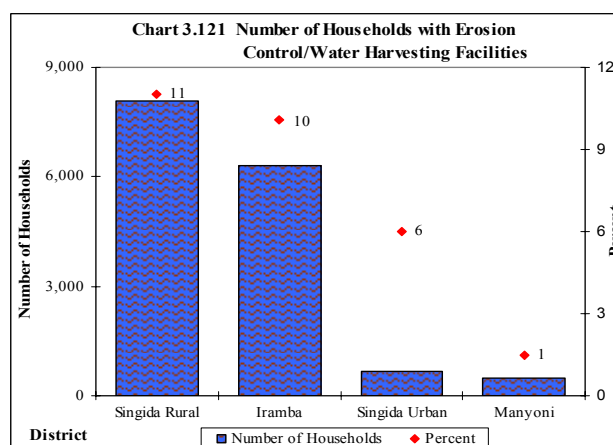
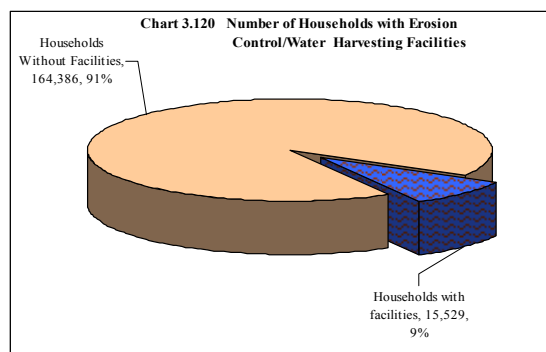
Erosion control and water harvesting facilities are grouped together as they normally have dual purposes of reducing erosion and increasing the amount of water available for crop production.

The number of agricultural households that had soil erosion and water harvesting facilities on their farms was 15,529 which represent 9 percent of the total number of agricultural households in the region (Chart 3.120).

The proportion of households with soil erosion control and water harvesting facilities was highest in Singida Rural district (11%) followed by Iramba (10%), Singida Urban (6%) and Manyoni (1%) (Chart 3.121). Erosion control bunds accounted for 61 percent of the total number of structures, followed by water harvesting bunds (17.4%), tree belts (11.9%), terraces (5.0%), drainage ditches (2.4%) and vetiver grass (2.1%) (Chart 3.122 and Map 3.36).

Erosion control bunds, water harvesting bunds and tree belts together had 166,275 structures. This represented 90.4 percent of the total structures in the region. The remaining 9.6 percentages were shared among the rest of the erosion control methods mentioned above.

Singida Rural and Iramba districts had 168,941 erosion control structures (91.8 percent of the total erosion structures in the region).



3.12 LIVESTOCK RESULTS

3.12.1 Cattle Production

The total number of cattle in the region was 1,257,159. Cattle are the dominant livestock type in the region followed by goats, sheep and pigs. The region had 7.5 percent of the total cattle population on Tanzania Mainland.

3.12.1.1 Cattle Population

The number of indigenous cattle in Singida region was 1,255,118 (99.8 % of the total number of cattle in the region), 1,115 cattle (0.09%) were dairy breeds and 925 cattle (0.07%) were beef breeds.

The census results show that 72,363 agricultural households in the region (40% of total agricultural households) kept 1.3 million cattle. This was equivalent to an average of 17 heads of cattle per cattle-keeping-household. The district with the largest number of cattle was Singida Rural which had about 588,491 cattle (46.8% of the total cattle in the region). This was followed by Iramba (450,174 cattle, 35.8%), Manyoni (173,993 cattle, 13.8%) and Singida Urban (44,501 cattle, 3.5%) (Chart 3.123 and Map 3.37). However, Iramba district had the highest density (163 head per km²) (Map 3.38).

Although Singida Rural district had the largest number of cattle in the region, most of them were indigenous. The number of dairy cattle was very small and the number of beef cattle was insignificant. Singida Rural was the only district with dairy cattle in the region. In general, the number of beef cattle in the region was insignificant (Chart 3.124).

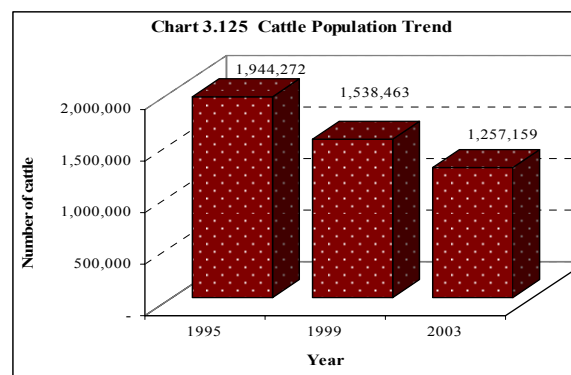
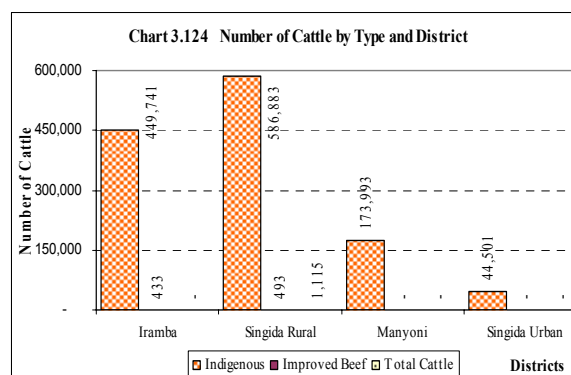
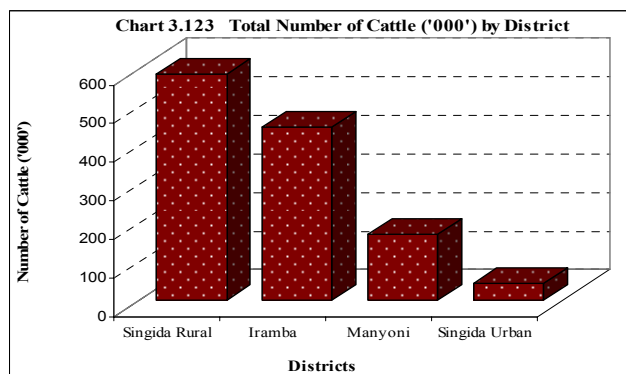
3.12.1.2 Herd Size

Thirteen percent of the cattle-rearing households had herds of size 1-5 cattle with an average of three cattle per household. Herd sizes of 6-30 accounted for about 44 percent of all cattle in the region. Only 23 percent of the cattle rearing households had herd sizes of 31- 100 cattle. About 92 percent of total cattle rearing households had herds of size 1-30 cattle and owned 50 percent of total cattle in the region, resulting in an average of 10 cattle per cattle rearing household. There were about 705 households with a herd size of more than 151 cattle each (291,197 cattle in total) resulting in an average of 413 cattle per household.

3.12.1.3 Cattle Population Trend

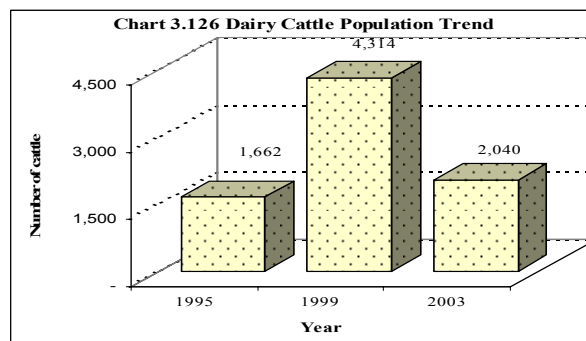
Cattle population in Singida decreased during the period of eight years from 1,944,272 in 1995 to 1,257,159 cattle in 2003. This trend depicts an overall annual negative growth rate of -4.7 percent (Chart 3.125).

There was a decrease in number of cattle for the period of four years from 1995 to 1999 at the rate of -4.6 percent whereby the number dropped from 1,944,272 to 1,538,463. The number of cattle further decreased from 1,538,463 in 1999 to 1,257,159 in 2003 at the rate of -4.9 percent.



3.12.1.4 Improved Cattle Breeds

The total number of improved cattle in Singida region was 2,040 (1,115 dairy and 925 improved beef). The dairy cattle constituted 0.09 percent of the total cattle and 55 percent of improved cattle in the region. The number of beef cattle in the region constituted 45 of the improved cattle in the region. The number of improved cattle increased from 1,662 in 1995 to 2,040 in 2003 at an annual growth rate of 3.21 percent. The growth rate was higher for the period from 1995 to 1999 (26.9%) then there was a sharp decrease from 1999 to 2003 (-16.1%) (Chart 126)

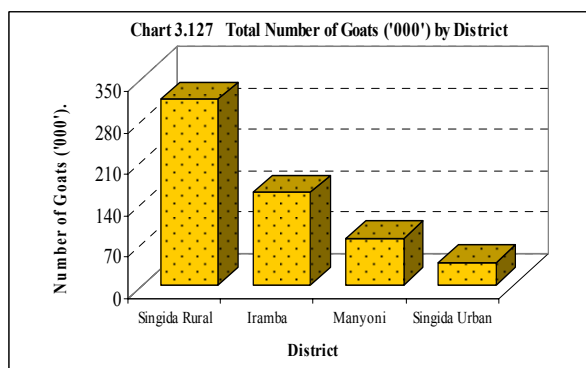


3.12.2. Goat Production

Goat rearing was the second most important livestock keeping activity in the region followed by sheep and pig rearing. In terms of total number of goats on the Mainland, Singida region ranked 8 out of the 21 regions with 6 percent of the total goats on the Mainland.

3.12.2.1 Goat Population

The number of goat-rearing-households in Singida region was 60,387 (34% of all agricultural households in the region) with a total of 684,420 goats giving an average of 11 head of goats per goat-rearing-household. Singida Rural had the largest number of goats (313,502 goats, 46% of all goats in the region), followed by Iramba (255,680 goats, 37%), Manyoni (77,829 goats, 11%) and Singida Urban (37,409 goats, 5%). (Chart 3.127 and Map 3.39). However, Iramba district had the highest density (92 head per km²) (Map 3.40).



3.12.2.2 Goat Herd Size

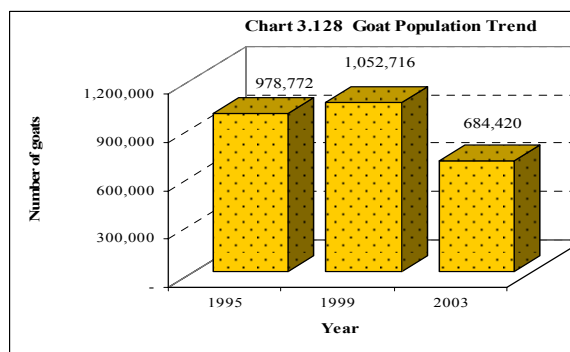
Seven percent of the goat-rearing households had herd size of 1-4 goats with an average of 3 goats per goat rearing household. Seventy five percent of total goat-rearing households had herd size of 1-14 goats and owned 43 percent of the total goats in the region resulting in an average of 6 goats per goat-rearing households. The region had 1,508 households (2.5%) with herd sizes of 40 or more goats each (104,321 goats in total), resulting in an average of 69 goats per household.

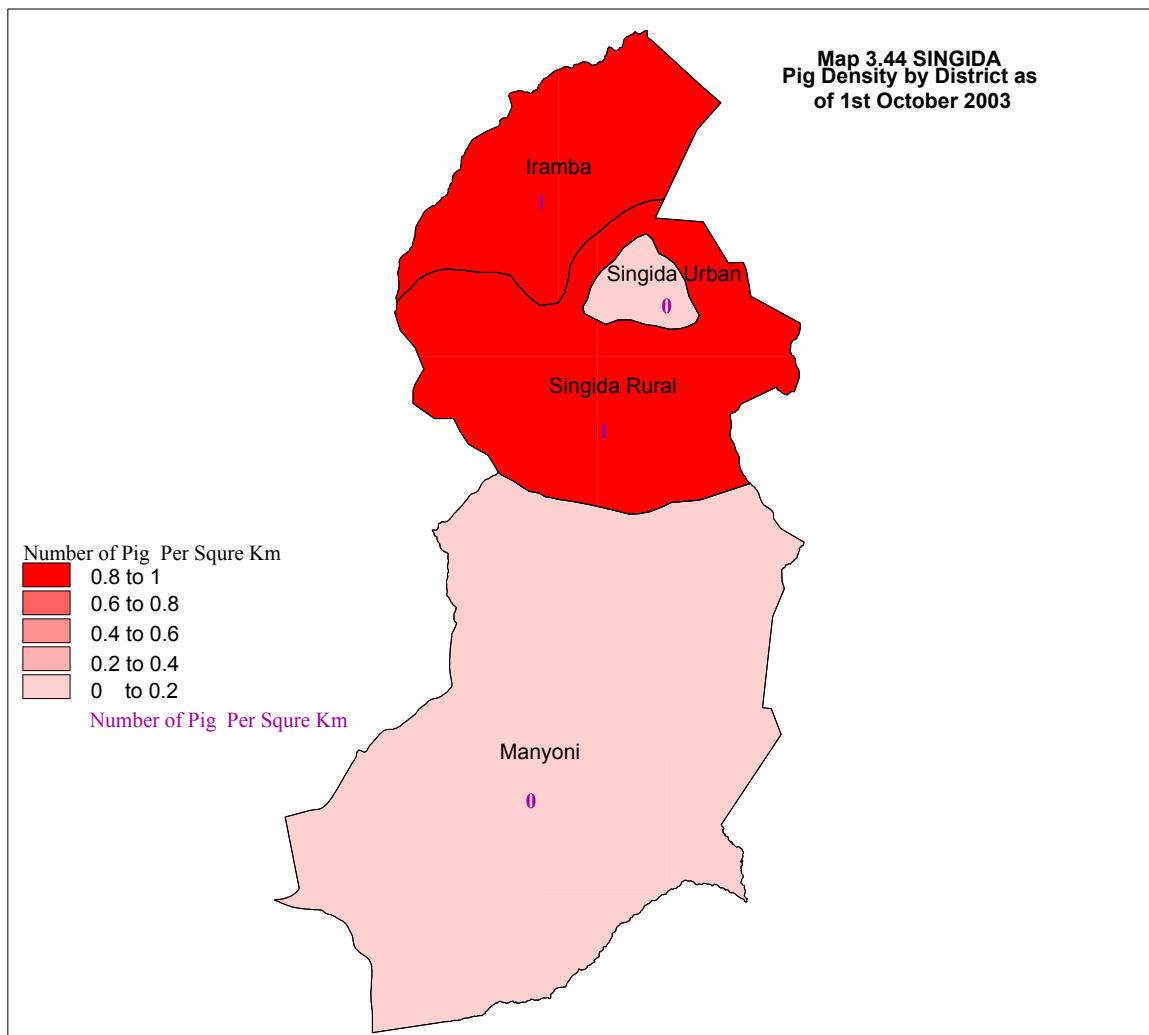
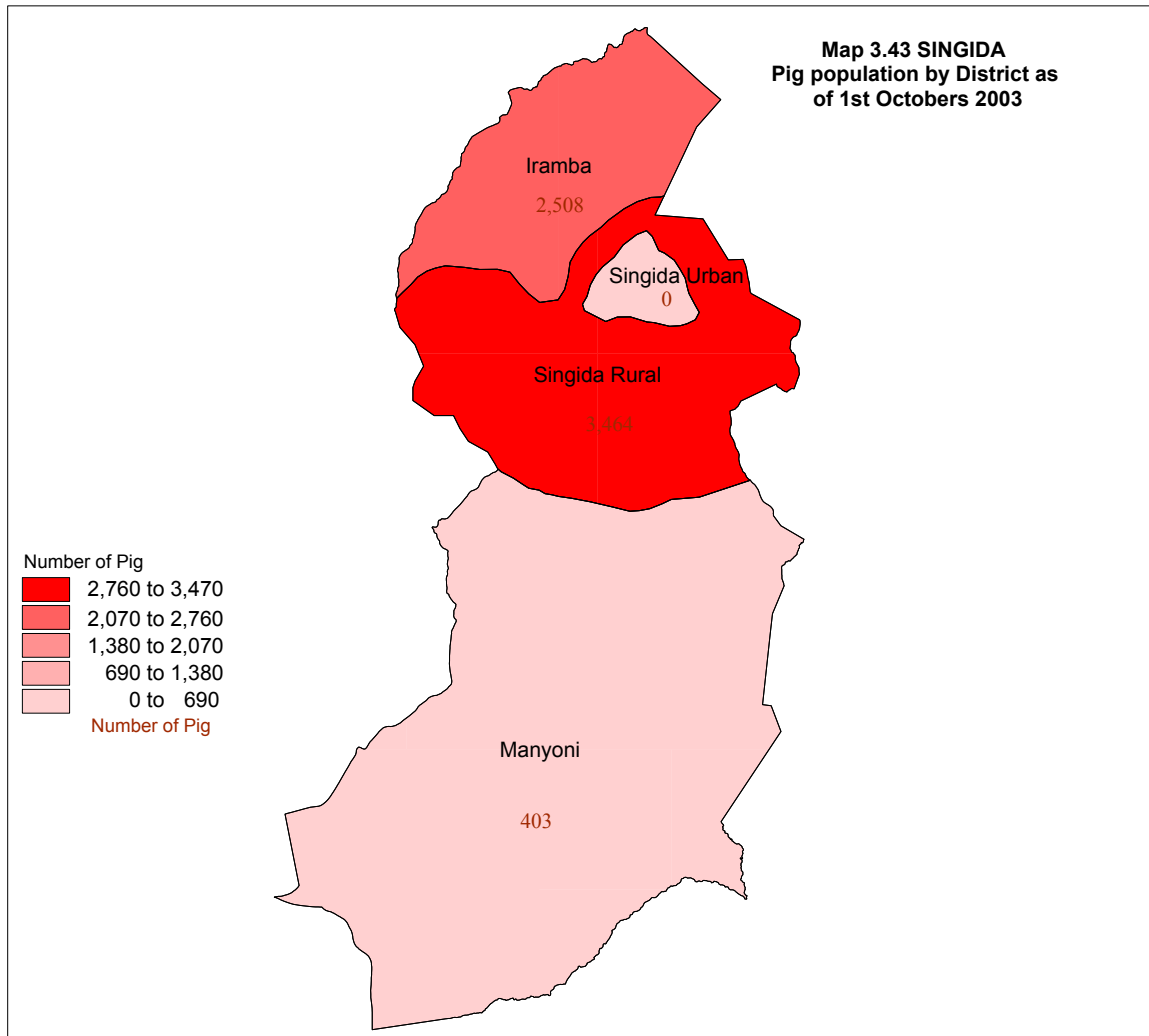
3.12.2.3 Goat Breeds

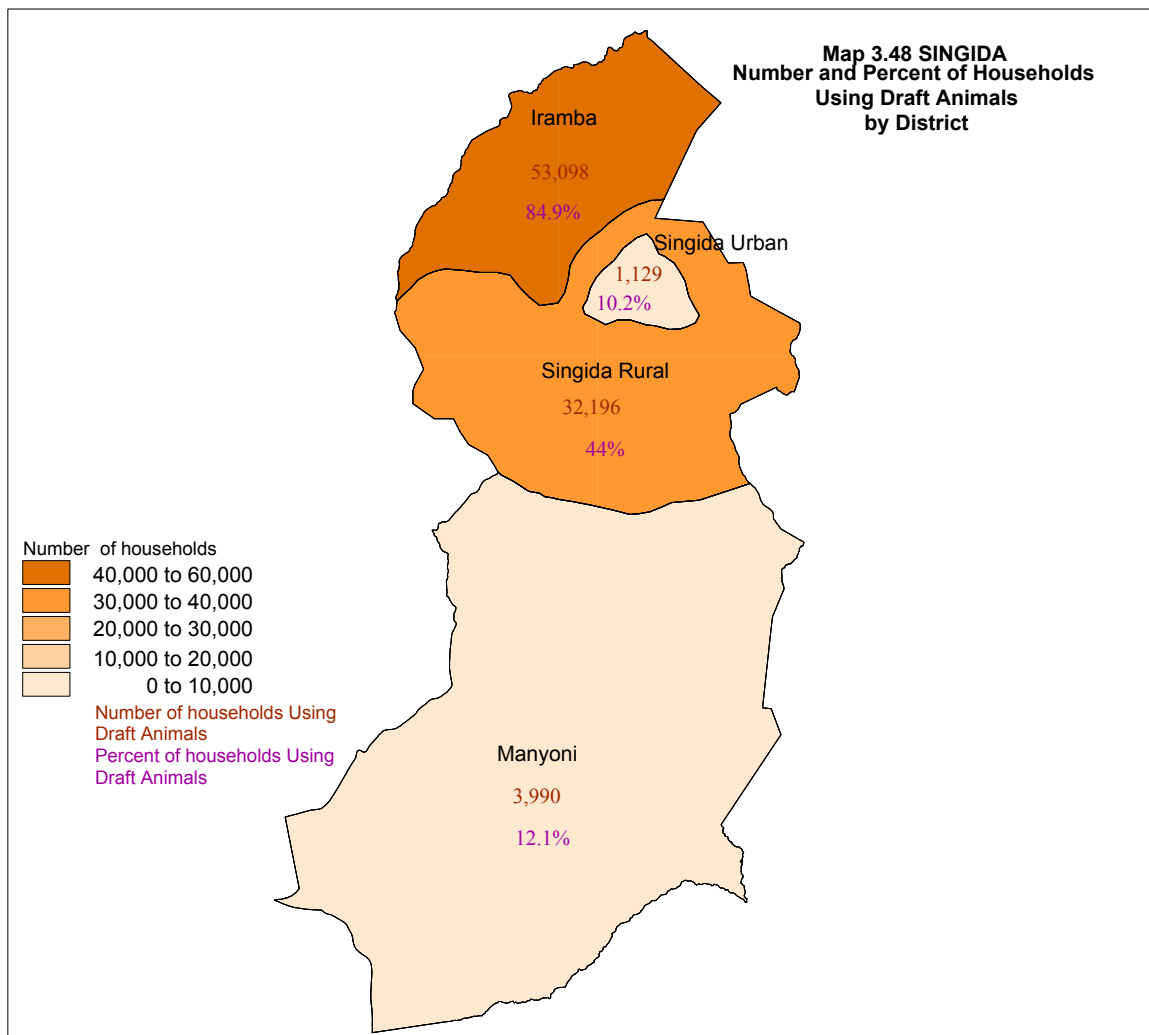
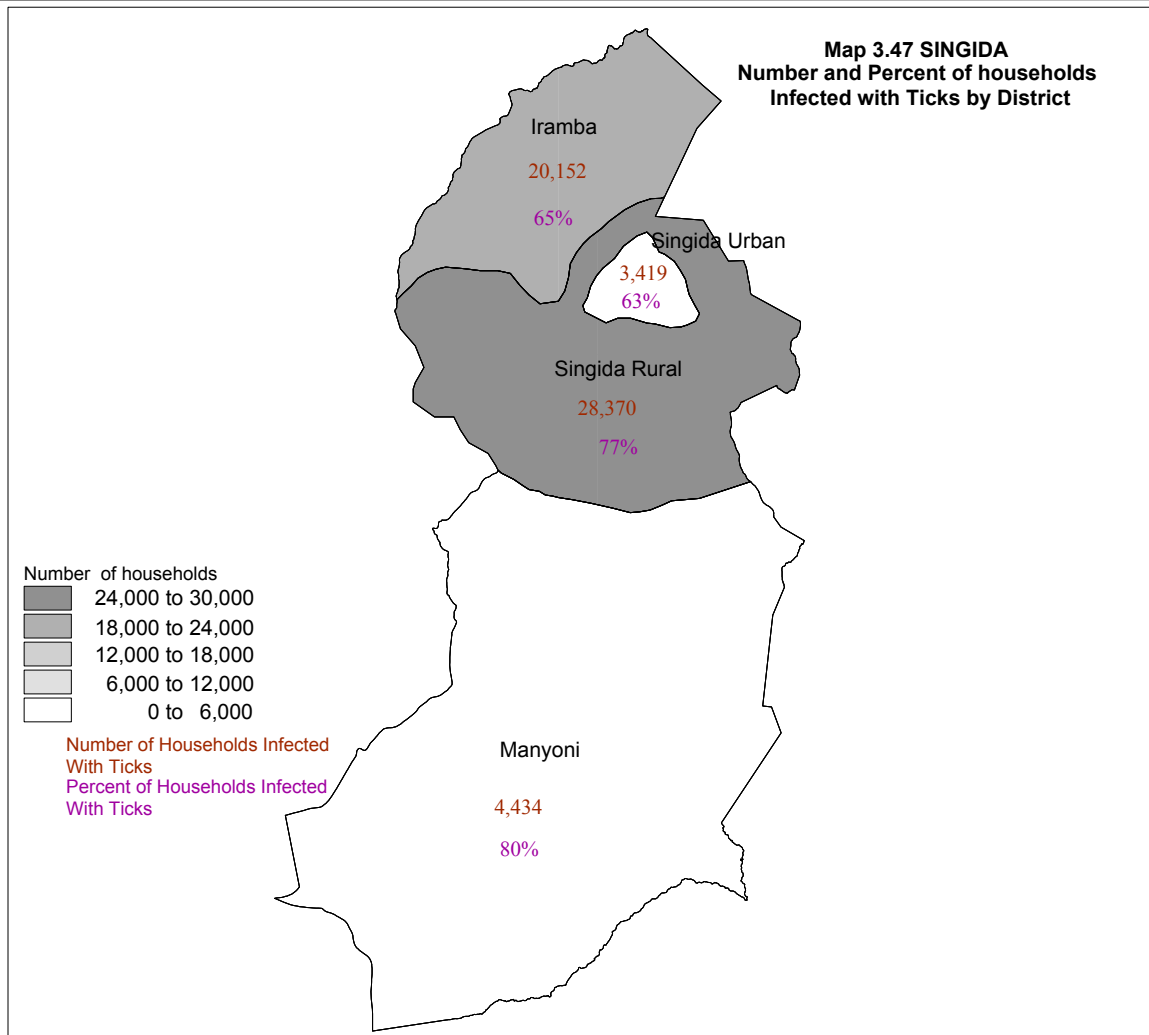
Goat husbandry in the region was dominated by the indigenous breeds that constituted 98.1 percent of the total goats in Singida region. Improved goats for beef and dairy constituted of 0.5 and 1.4 percent of total goats respectively.

3.12.2.4 Goat Population Trend

The overall annual growth rate of goat population from 1995 to 2003 was -4.4 percent. This negative trend implies eight years of population decrease from 978,772 in 1995 to 684,420 in 2003. The number of goats increased from 978,772 in 1995 at an estimated annual rate of 1.8 percent to 1,052,716 in 1999. From 1999 to 2003, the goat population decreased at an annual rate of -10.2 percent (Chart 128).







3.12.3. Sheep Production

Sheep rearing was the third important livestock keeping activity in Singida region after cattle and goats. The region ranked 4 out of 21 Mainland regions and had 8 percent of all sheep on Tanzania Mainland.

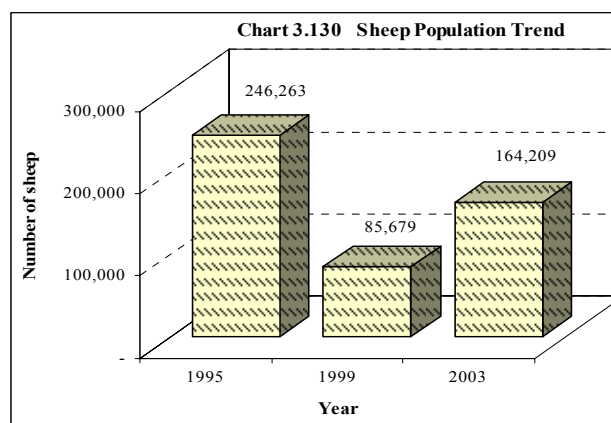
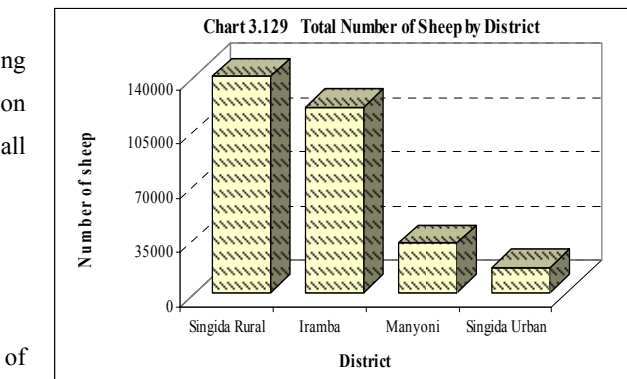
3.12.3.1 Sheep Population

The number of sheep-rearing households was 39,179 (22% of all agricultural households in Singida region) rearing 309,938 sheep, giving an average of 8 heads of sheep per sheep-rearing household. The district with the largest number of sheep was Singida Rural with 141,604 sheep (46% of total sheep in Singida region) followed by Iramba (119,704 sheep, 39%), Manyoni (31,901 sheep, 10%) and Singida Urban (16,729 sheep, 5%) and Map 3.41). Iramba district also had the highest density (43 head per km²) (Map 3.42).

Sheep rearing was dominated by indigenous breeds that constituted 99 percent of all sheep kept in the region. Only 1 percent of the total sheep in the region was made up of improved breeds.

3.12.3.2 Sheep Population Trend

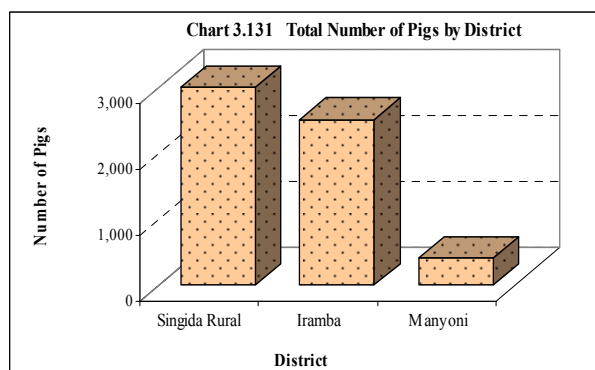
The overall annual growth rate of the sheep population for the eight year period from 1995 to 2003 is estimated at -4.9 percent. The population decreased at an annual rate of -23.2 percent from 246,263 in 1995 to 85,679 in 1999. From 1999 to 2003, sheep population increased at an annual rate of 17.7 percent (Chart 3.130).



3.12.4. Pig Production

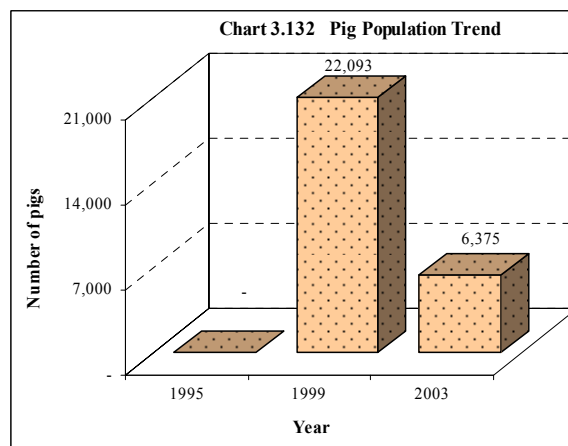
Piggery is the least important livestock keeping activity in the region after cattle, goats and sheep. The region ranks 13 out of 21 Mainland regions and is 0.65 percent of the Mainland total pigs.

The number of pig-rearing agricultural households in Singida region was 2,554 (1.4% of the total agricultural households in the region) rearing 6,375 pigs. This gives an average of 3 pigs per pig-rearing household. The district with the largest number of pigs was Singida Rural with 3,464 pigs (54% of the total pig population in the region) followed by Iramba (2,508 pigs, 39%) and Manyoni (403 pigs, 6%) (Chart 3.131 and Map 3.44). However, Iramba district had the highest density (1 head per km²) (Map 3.43). There are no pigs were in Singida Urban district.



3.12.4.1 Pig Population Trend

The overall annual growth rate of the pig population for the eight years period from 1995 to 2003 was 24.7 percent. During this period the population grew from 1,072 to 6,281. The pig population increased from 1072 in 1995 to 22,093 in 1999 at a high rate of 26.2 percent. The growth rate dropped to 23.3 percent during the following four years from 1999 to 2003 in which pig population increased from 2,715 to 6,281 (Chart 3.132).



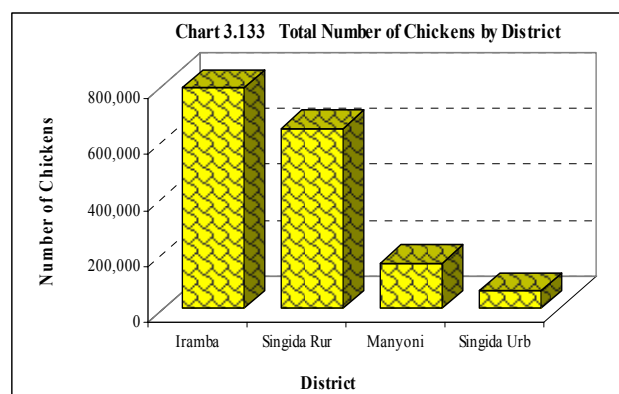
3.12.5 Chicken Production

The poultry sector in Singida region was dominated by chicken production. The region contributed 5.0 percent to the total chicken population on Tanzania Mainland.

3.12.5.1 Chicken Population

The number of households keeping chicken was 125,895 raising about 1,658,178 chickens. This gives an average of 13 chickens per chicken-rearing household. In terms of total number of chickens in the country, Singida region was ranked ninth out of the 21 Mainland regions.

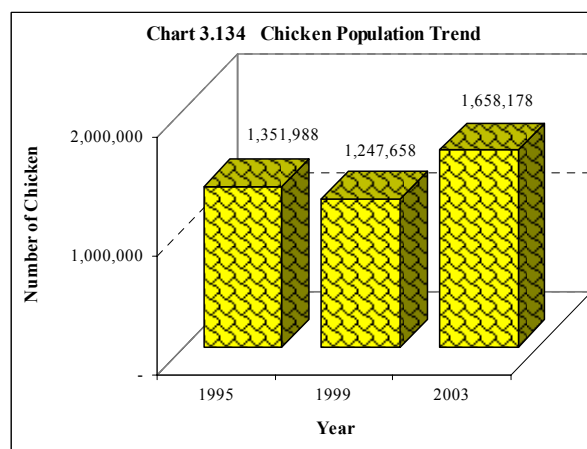
The District with largest number of chickens was Iramba (788,336 chickens, 47% of the total number of chickens in the region) followed by Singida Rural (644,898, 39%), Manyoni (163,332, 10%) and Singida Urban (61,610, 4%) (Chart 3.133 and Map 3.45) However Iramba district had the highest density (285 chickens per km²) (Map 3.46)



3.12.5.2 Chicken Population Trend

The overall annual chicken population growth rate during the eight-year period from 1995 to 2003 was 2.58 percent. The population decreased at a rate of -1.99 percent from 1995 to 1999 after which it increased at a rate of 7.37 percent for the four year period from 1999 to 2003 (Chart 3.134).

Ninety nine percent of all chicken in Singida region were of indigenous breed. The dominance of indigenous breed makes the population trend for the indigenous chicken more-or-less the same as that of the total chickens in the region.



3.12.5.3 Chicken Flock Size

The results indicate that about 82 percent of all chicken-rearing households were keeping 1-19 chickens with an average of 8 chickens per holder. About 18 percent of holders were reported to be keeping the flock size of 20 to 99 chickens with an average of 32 chickens per holder.

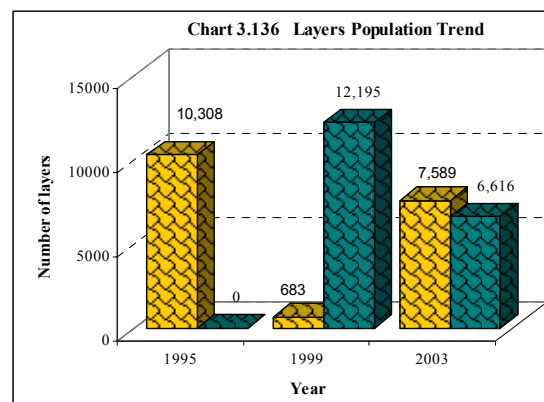
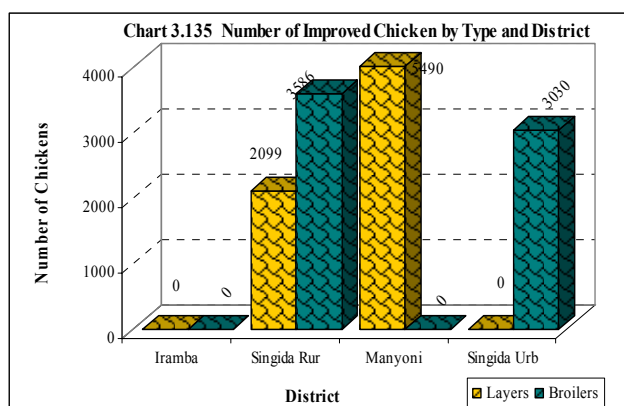
Only 0.32 percent of holders kept the flock sizes of more than 100 chickens at an average of 389 chickens per holder (Table 3.14).

Table 3.15 Number of Households and Chickens Raised by Flock Size

Flock Size	Number of Households	%	Number of Chicken	Average Chicken by Households
1 - 4	28,333	23	82,492	3
5 - 9	36,894	29	237,115	6
10 - 19	38,301	30	489,501	13
20 - 29	12,115	10	270,586	22
30 - 39	5,370	4	174,050	32
40 - 49	1,937	2	85,947	44
50 - 99	2,471	2	162,264	66
100+	401	0	156,222	389
Total	125,823	100	1,658,178	13

3.12.5.4 Improved Chickens (layers and broilers)

Layers chicken population in Singida Region decreased at an annual rate of 48.2 percent for the period of four years from 10,308 in 1995 to 7,558 in 2003. There were no layers in Iramba and Singida Urban districts (Chart 3.135).



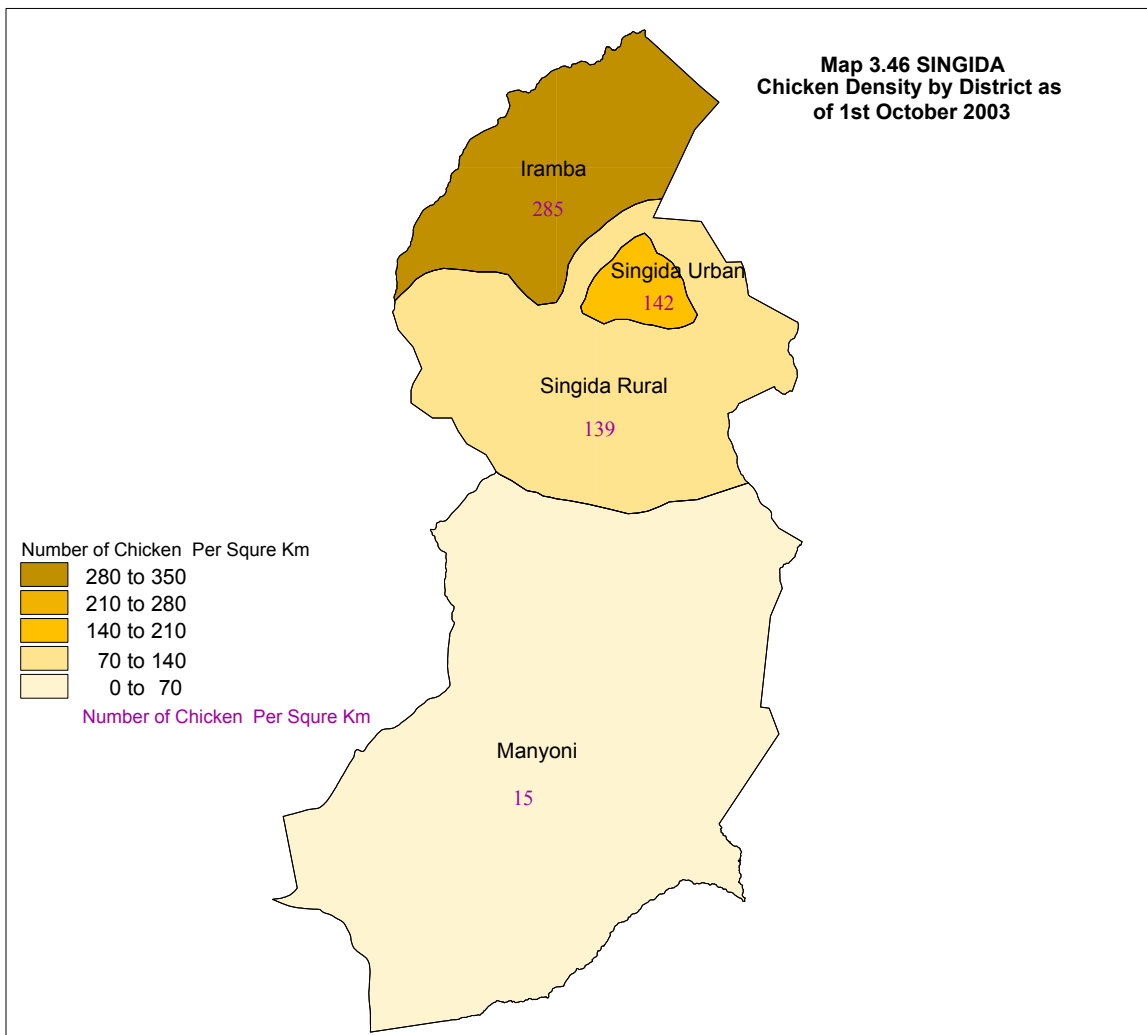
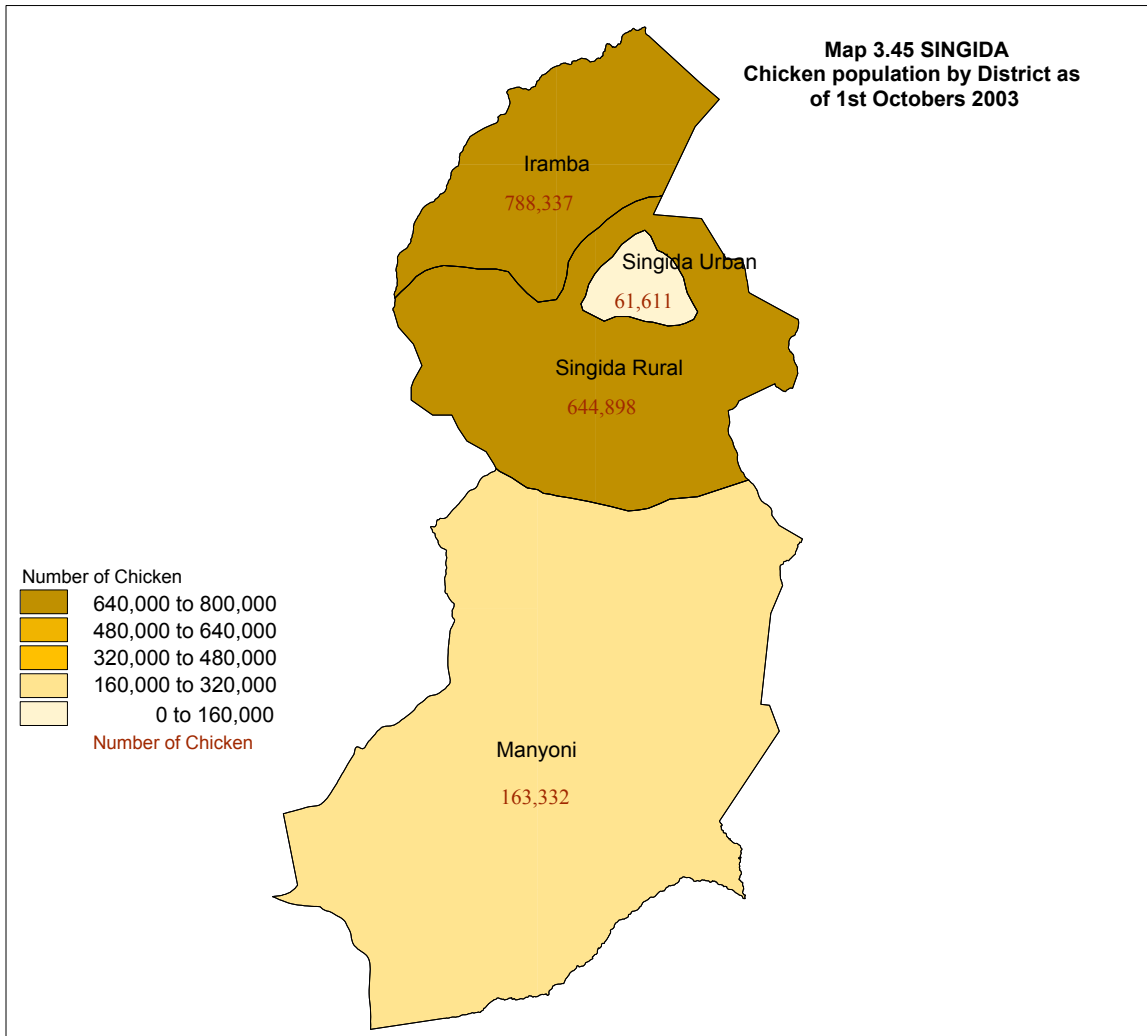
The overall annual growth rate for broilers during the four-year period from 1999 to 2003 was -14.18 percent during which the population dropped from 12,195 to 6,616. (Chart 3.136)

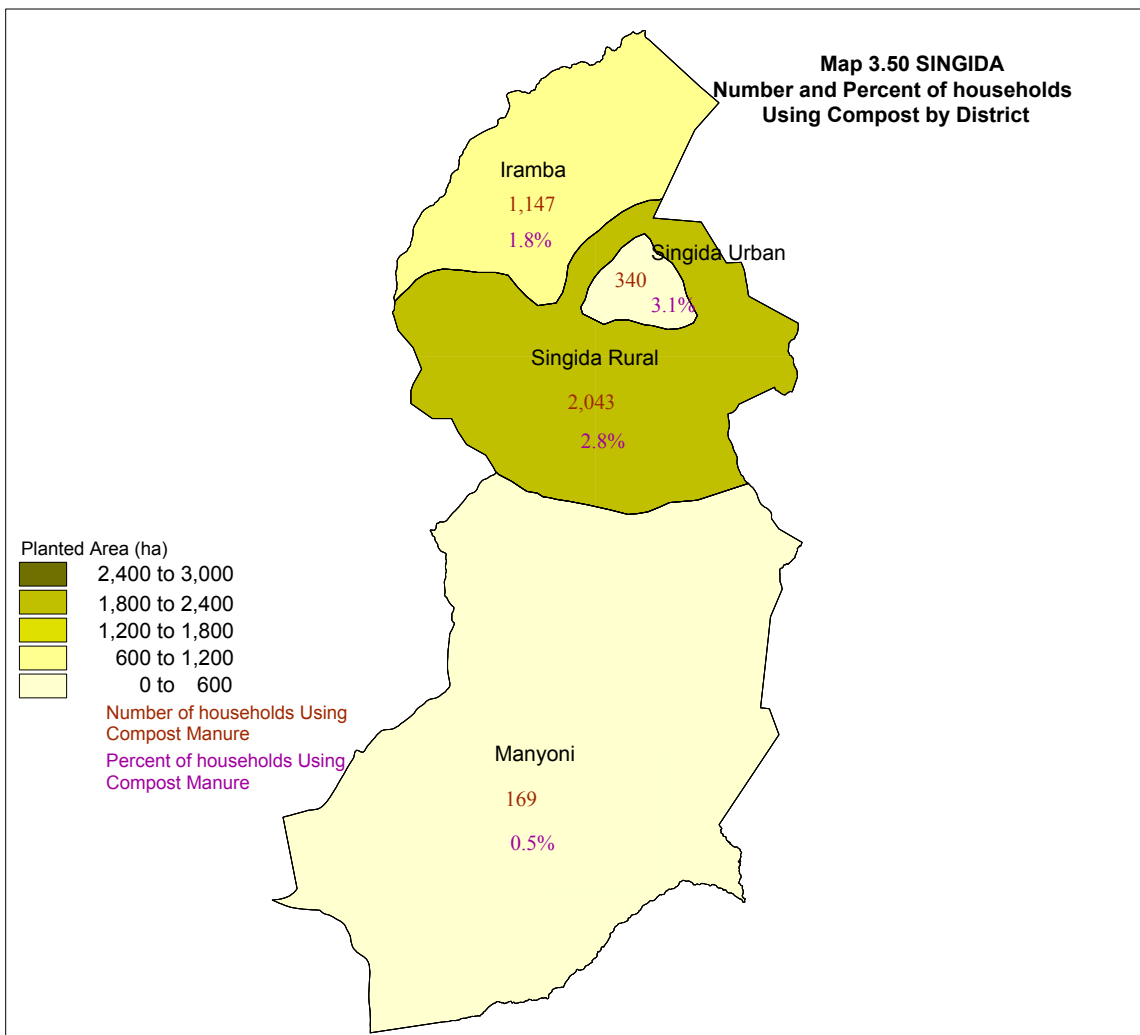
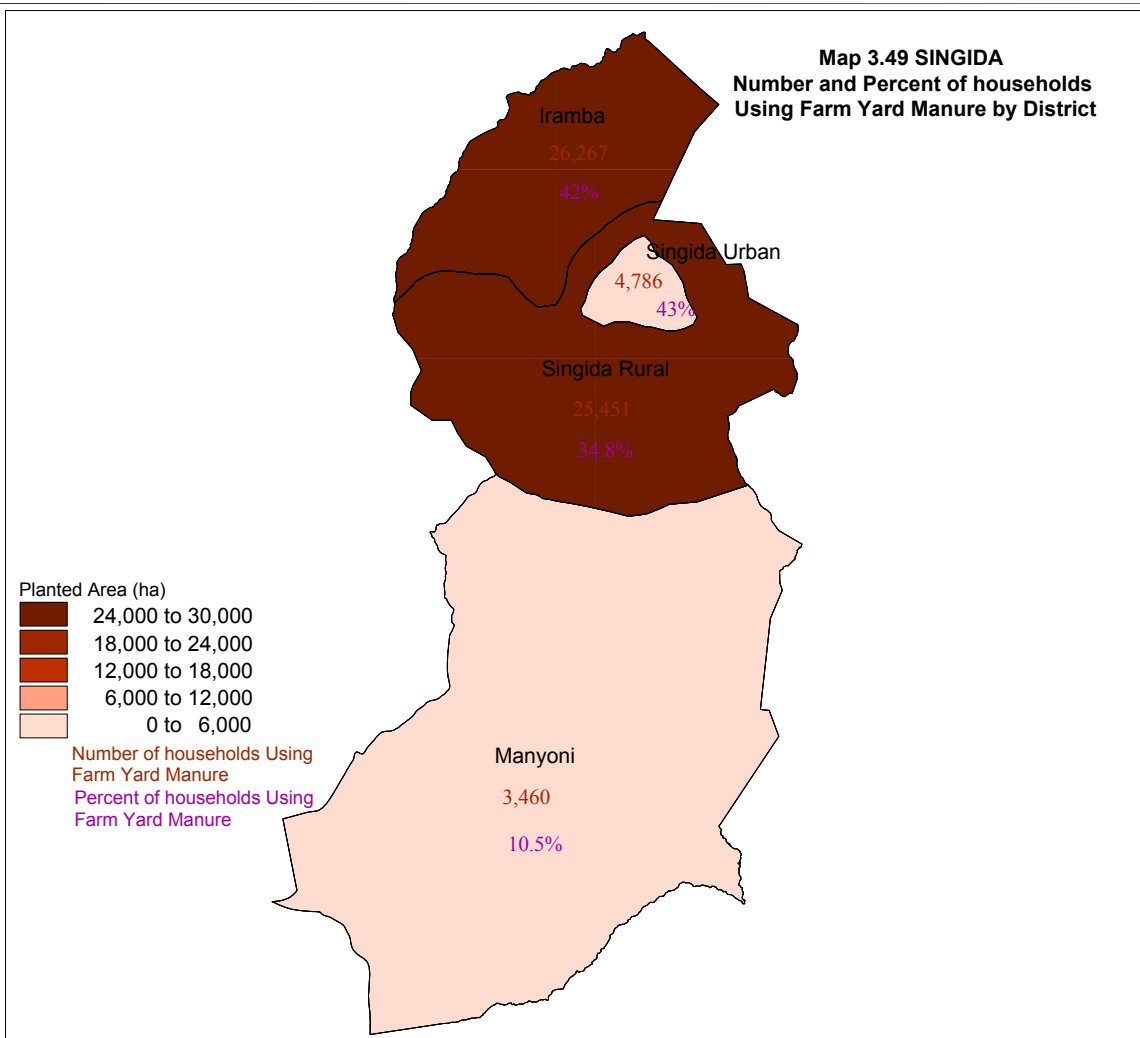
3.12.6. Other Livestock

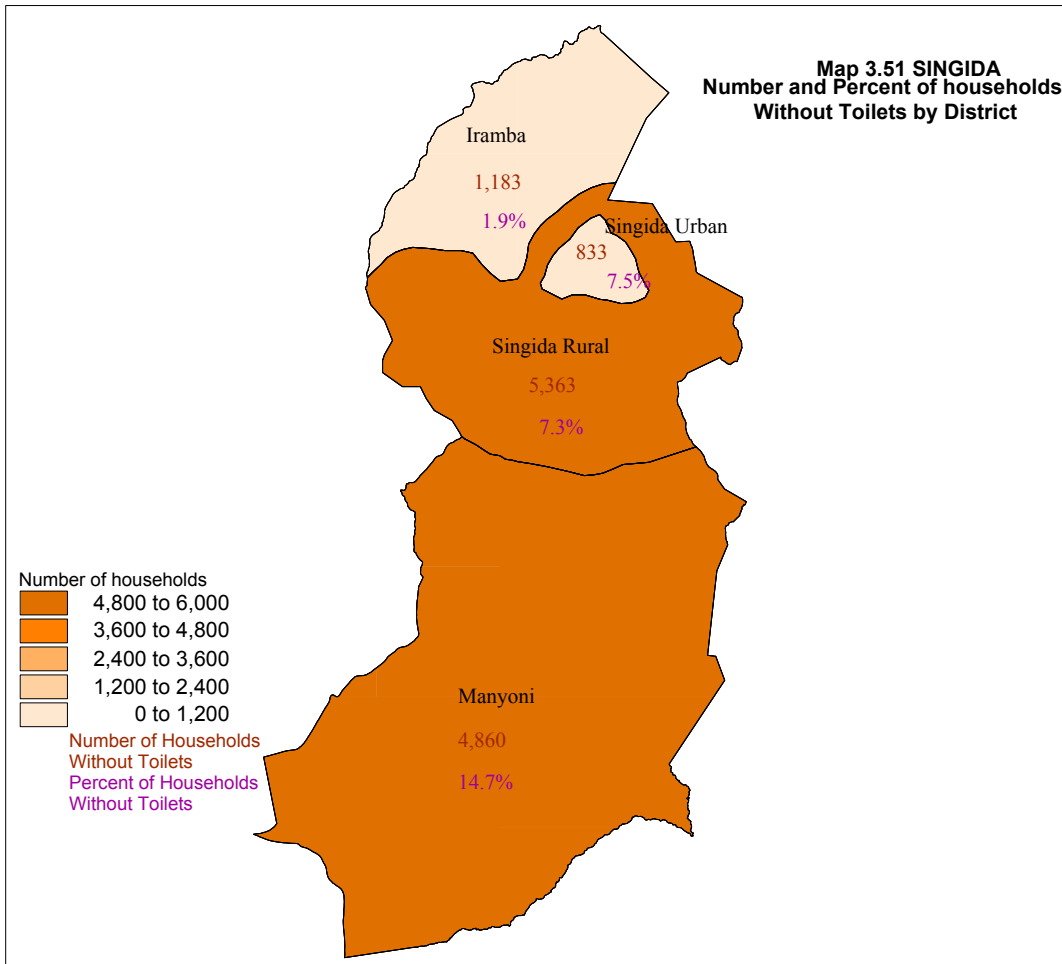
There were 35,013 ducks, donkeys, 16,649, turkeys, 7,501 and rabbits 840 raised by rural agricultural households in Singida region. Table 3-16 indicates the number of livestock kept in each district. The biggest number of ducks in the region was found in Singida Rural District (57% of all ducks in the region), followed by Iramba (24%), Singida Urban (12%) and Manyoni (7%). Turkeys were reported in Singida Rural district only (Table 3.16).

Table 3.16 Number of Other Livestock by Type of Livestock and District

District	Type of Livestock				
	Ducks	Turkeys	Rabbits	Donkeys	Other
Iramba	8,357	.	.	12,295	1,142
Singida R	19,791	7,501	.	4,354	2,859
Manyoni	2,528
Singida U	4,336	.	840	.	.
Total	35,013	7,501	840	16,649	4,001





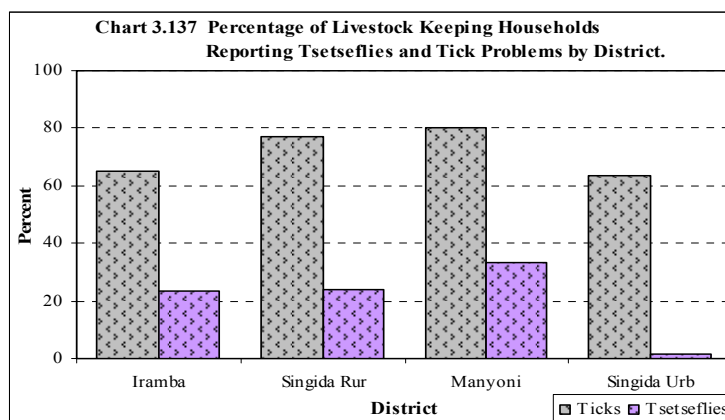


3.12.7 Pest and Parasite Incidence and Control

The results indicate that 72 percent and 23 percent of the total livestock-keeping households reported to have encountered ticks and tsetse fly problems respectively. Chart 3.137 shows that there is a predominance of tick related diseases over tsetse related diseases. Incidences of both problems were highest in Manyoni district but lowest in Singida Urban district (Map 3.47).

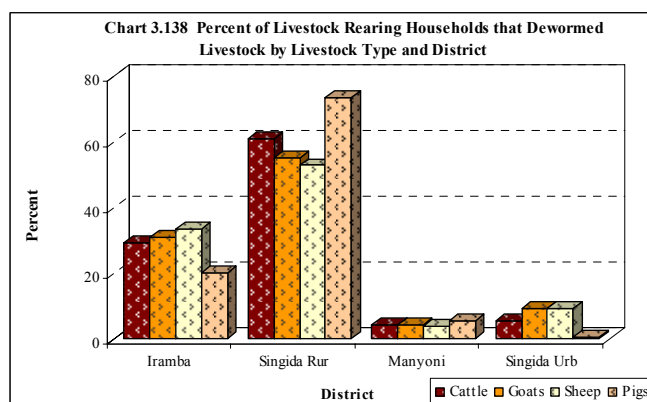
The most practiced method of controlling ticks spraying with 41 percent of all livestock-rearing households in the region using the method. Other methods used were dipping (14%), smearing (3%) and other traditional methods like hand picking (13%). However, 29 percent of livestock-keeping households did not use any method.

The most common method used to control tsetse flies was spraying which was practiced by 47 percent of livestock-rearing households and dipping (6%). However, 46 percent of the livestock rearing households did not use any of the three aforementioned methods.



3.12.7.1 Deworming

Livestock rearing households that dewormed their animals were 34,103 (42 % of the total livestock rearing households in the region). The percentage of the households that dewormed cattle was 44.3 percent, goats (31.5%), sheep (14.3%) and pigs (9.9%) (Chart 3.138)

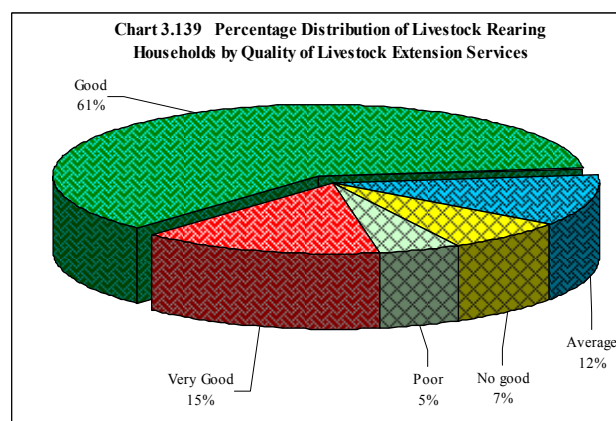


3.12.8. Access to Livestock Services

3.12.8.1 Access to Livestock Extension Services

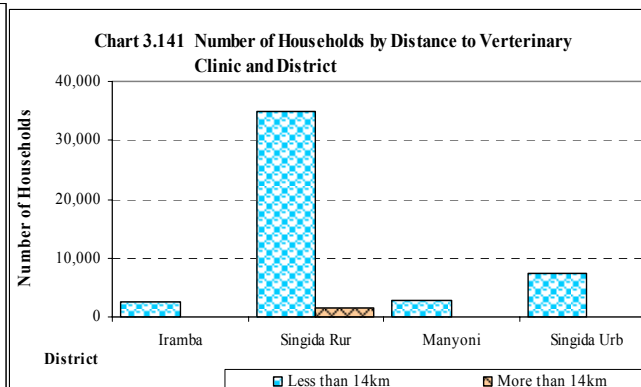
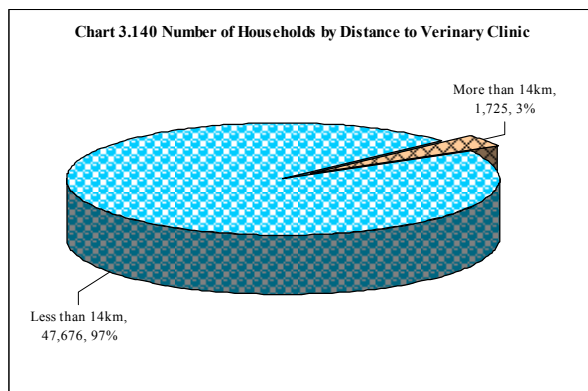
The total number of households that received livestock advice was 45,588, representing 55 percent of the total livestock-rearing households and 25 percent of the agricultural households in the region. The main livestock extension agent was the government which provided service to about 98.5 percent of all households receiving livestock extension services. The rest of the households got services from NGOs/development projects (1.5%).

About 61 percent of livestock rearing households described the general quality of livestock extension services as being good, 15 percent said they were very good and 12 percent said they were average. However, 7 percent of the livestock rearing households said the quality was not good whilst 5 percent described them as poor (Chart 3.139).



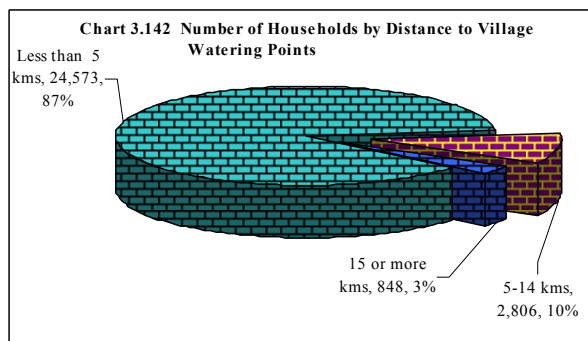
3.12.8.2 Access to Veterinary Clinic

Many veterinary clinics were located very far from livestock rearing households. About 97 percent of the livestock rearing households accessed the services, at a distance of more than 14 kms. Only 3 percent of them accessed the services within 14 kms from their dwellings (Chart 3.140). Almost all livestock rearing households accessing the services at a distance of less than 14 kms and the majority were within 5kms (Chart 3.141).

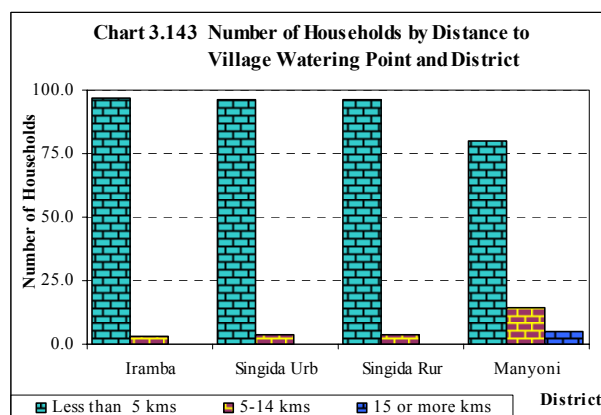


3.12.8.3 Access to Village Watering Points/dam

The number of livestock rearing households residing less than 5 kms from the nearest watering point was 24,573 (87% of livestock rearing households in Singida region) whilst 2,806 households (10%) resided between 5 and 14 kms. However, 848 households (3%) had to travel a distance of 15 or more kms to the nearest watering point (Chart 3.142).



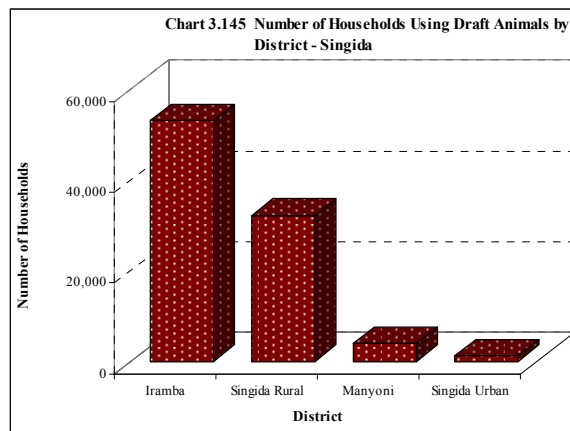
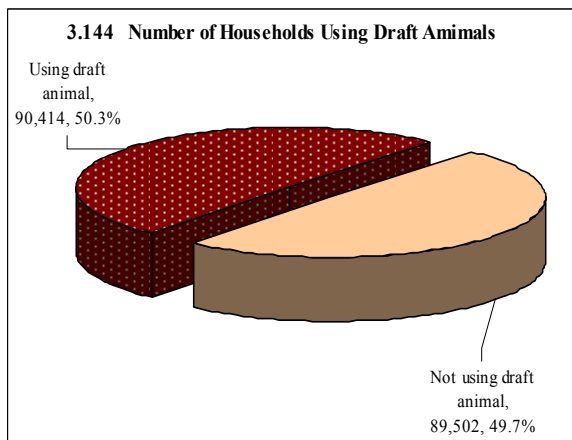
Iramba district had the best livestock water supply with the majority of livestock rearing households residing within 5 kms from the nearest watering point. This is followed by Singida Urban, Singida Rural and Manyoni districts. In Manyoni district about 20 percent of the livestock rearing households had to travel a distance of more than five kilometers to the nearest watering point (Chart 3.143).



3.12.9. Animal Contribution to Crop Production

3.12.9.1 Use of Draft Power

Use of draft animals to cultivate land in Singida region is encouraging with 90,414 households (50.3% of the total households in the region) using them (Chart 3.144).

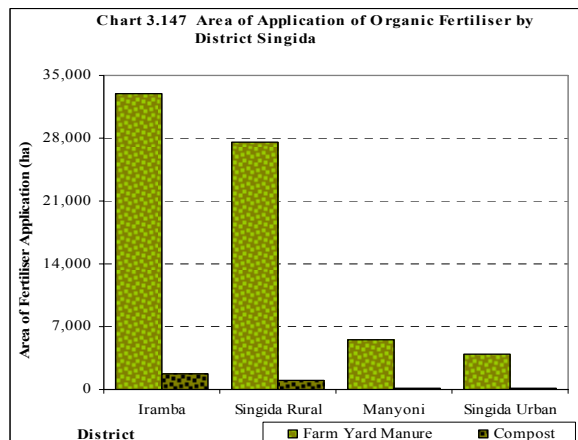
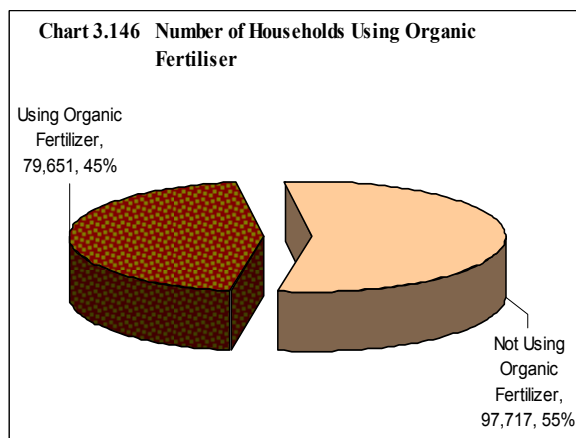


The number of households that used draft animals in Iramba district was 53,098 (59% of the households using draft animals in the region). In Singida Rural the number of households using draft animals was 32,196 (36%). The use of draft animals was small in Manyoni and Singida Urban (Chart 3.145 and Map 3.48)

The region had 199,820 oxen that were used to cultivate 182,070 hectares of land. This represents only 8.9 percent of the total oxen found on the Mainland. The largest area cultivated using oxen was found in Iramba district (105,194 ha, 58% of the total area cultivated using oxen).

3.12.9.2 Use of Farm Yard Manure

The number of Households using organic fertilizer in Singida region was 79,651 (44% of total crop growing households in the region) (Chart 3.146). The total area applied with organic fertiliser was 180,367 ha or 37% of the area planted with annual crops and vegetables in Singida region during the long rainy season) was applied with farm yard manure (Map 3.49).



3.12.9.4 Use of Compost

Only 7,523 ha (4% of the area of organic fertilizer application) was applied with compost. The largest area applied with compost was found in Iramba district with 32,951 hectares (47.1% of the total area applied with compost) followed by Singida Rural (27,618 ha, 39.5%), Manyoni (5,504 ha, 7.9%) and Singida Urban (3,905 ha, 5.6%) (Chart 3.147 and Map 3.50)

3.12.10 Fish Farming

There was no fish farming in the region.

3.13. POVERTY INDICATORS

The agricultural census collected data on poverty for the purpose of providing a base for tracking progress in poverty reduction strategies undertaken by the government.

3.13.1 Access to Infrastructure and Other Services

The results indicate that among the evaluated services, tarmac road was a service located very far from most of the household's dwellings than any other service. It was located at an average distance of 154.6 kilometers from the agricultural household's dwelling. Other services and their respective average distances in kilometers from the dwellings were feeder road (2.0), primary school (3.0), all weather road (6.0), health clinics (6.8), primary market (7.7), secondary market (11.6), secondary school (18.2), hospital (35.7) and tertiary market (42.2) (Table 3.17).

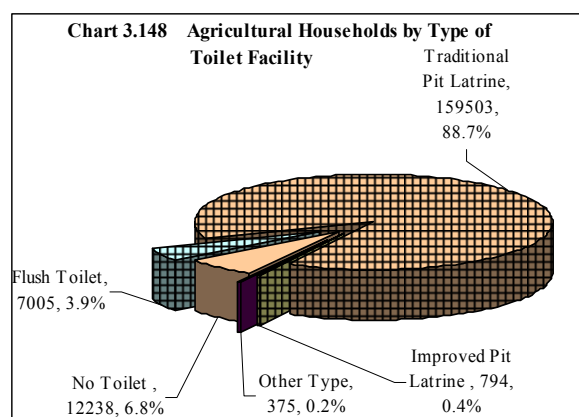
District	Mean Distance to										
	Secondary Schools	Primary Schools	All weather roads	Feeder Roads	Hospitals	Health Clinics	Regional Capital	Primary Markets	Secondary Market	Tertiary Market	Tarmac Roads
Iramba	14.9	1.8	4.5	2.4	37.0	6.3	167.4	6.5	9.2	41.1	186.6
Singida Rur	18.9	2.9	7.5	2.0	35.8	8.0	115.9	9.0	12.4	40.3	114.0
Manyoni	24.1	5.7	6.8	1.4	41.5	6.0	49.7	8.5	15.8	58.9	221.4
Singida Urb	14.5	2.1	2.4	1.2	11.2	4.3	16.6	3.7	7.4	11.0	44.1
Total	18.2	3.0	6.0	2.0	35.7	6.8	67.7	7.7	11.6	42.2	154.6

Only 5 percent of the agricultural households reported the available infrastructures and services as 'very good' whereas 33 percent reported them to be 'no good'. Twenty four percent of the agricultural households said the infrastructure and services were good. Those who said the infrastructures and services were poor were 21 percent while 17 percent said they were average.

3.13.2 Type of Toilet

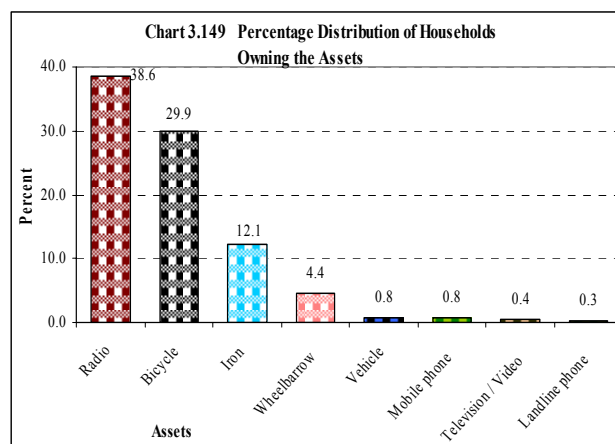
A large number of rural agricultural households use traditional pit latrines (159,503 households, 88.7% of all rural agricultural households) 7,005 households. This is followed by flush toilets (7,005 households 3.9%), improved pit latrines (794 households, 0.4%) and other types of toilets (375 household, 0.2%). However, 12,238 households (6.8%) in the region had no toilet facilities (Chart 3.148).

The distribution of the households without toilets within the region indicates that 44 percent of them were found in Singida Rural district followed by Manyoni (40%), Iramba (10%), and Singida Urban (7%) (Map 3.51)



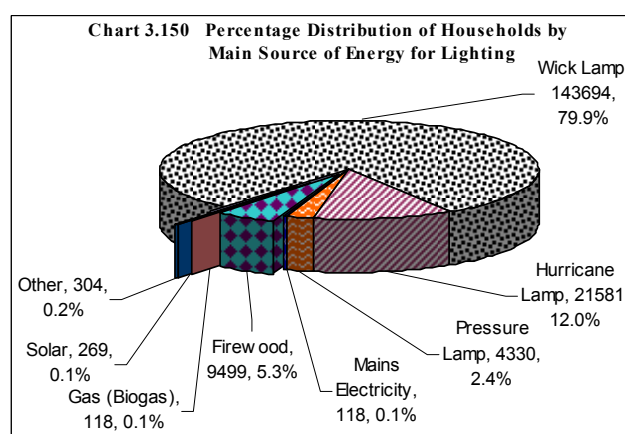
3.13.3 Household's Assets

Radios were owned by most rural agricultural households in Singida region with 69,474 households (38.6% of the agriculture households in the region) owning the asset followed by bicycle (53,864 households, 29.9%), iron (21,799 households, 12.1%), wheelbarrows (8,003 households, 4.4%), vehicles (1,464 households, 0.8%), mobile phones (1,463 households, 0.8%), television/videos (801 households, 0.4%) and landline phone (605 households, 0.3%) (Chart 3.149)



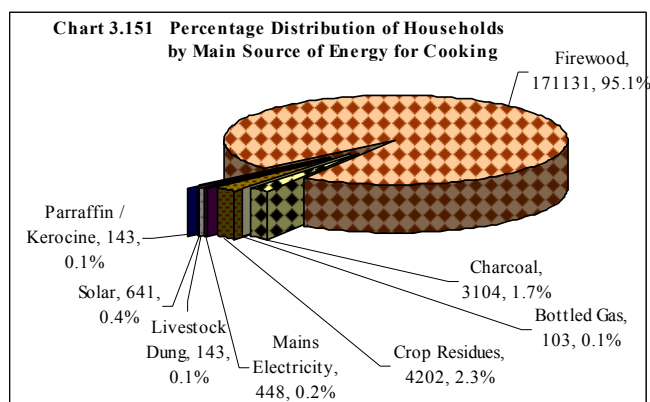
3.13.4 Sources of Lighting Energy

Wick lamp is the most common source of lighting energy in the region with 79.9 percent of the total rural households using this source of energy followed by hurricane lamp (12%), fire wood (5.3%), and pressure lamp (2.4%). The remaining sources of lighting were minor. (Chart 3.150)



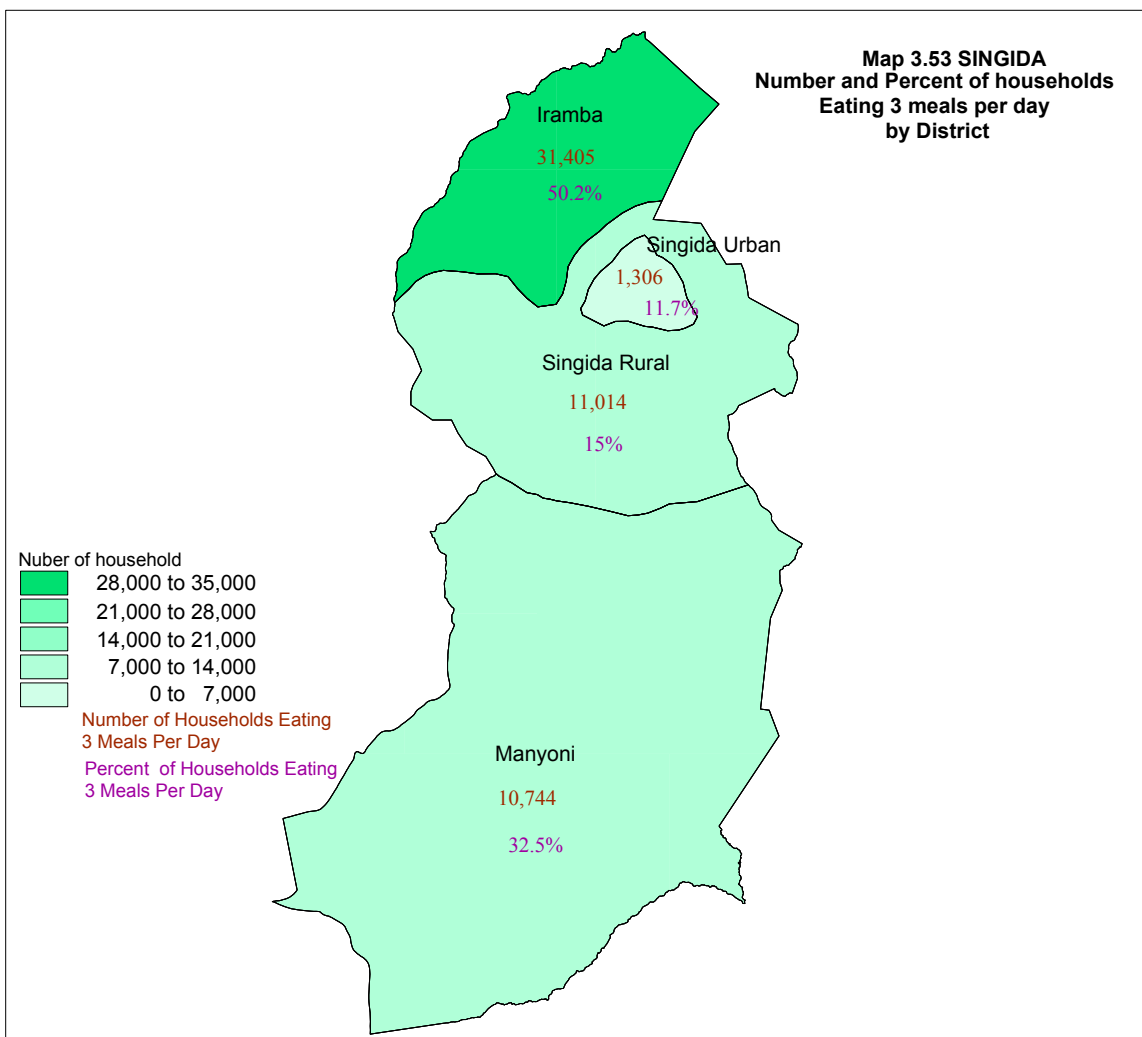
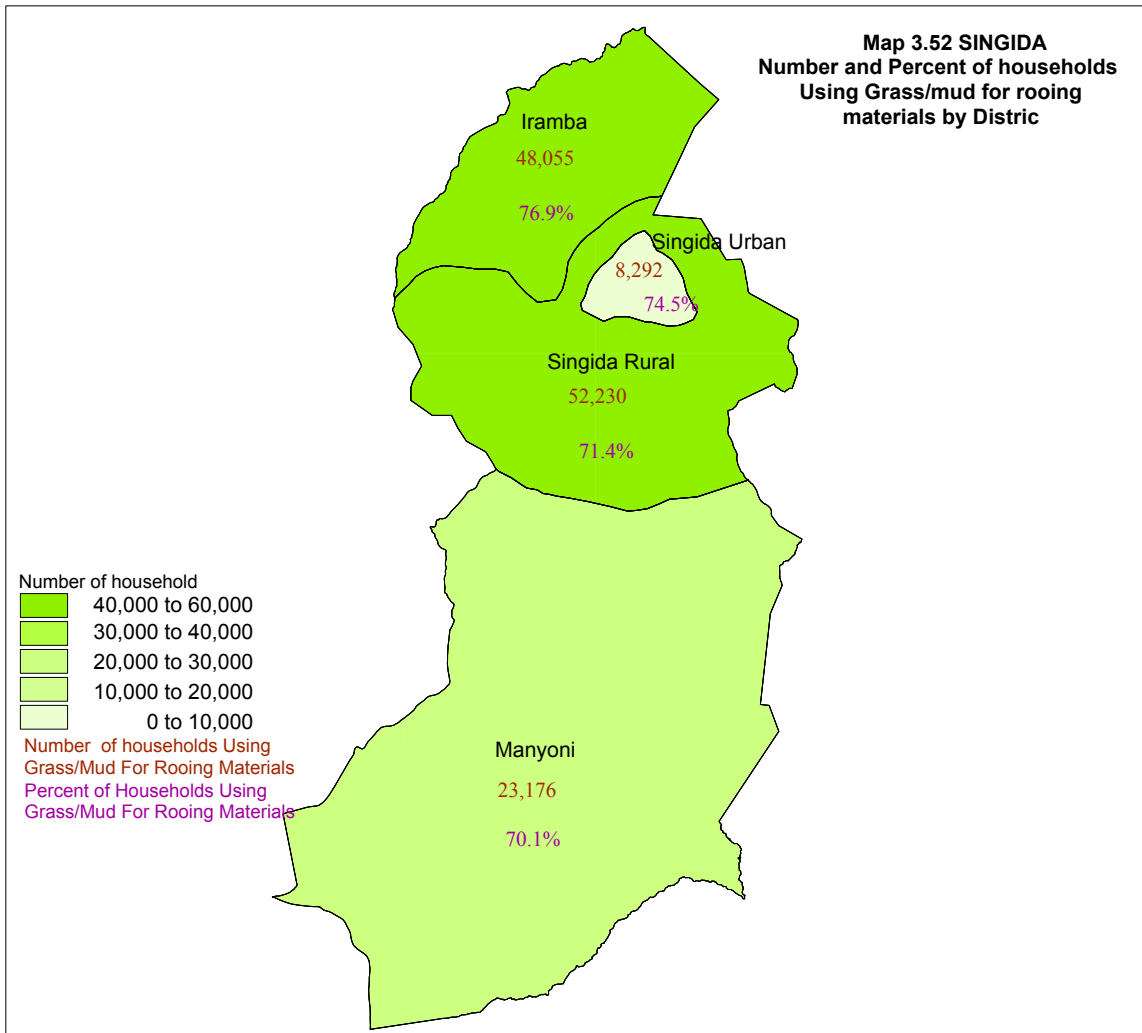
3.13.5 Sources of Energy for Cooking

The most prevalent source of energy for cooking was firewood, which was used by 95.1 percent of all rural agricultural households in Singida region. This is followed by crop residues (2.3%) and charcoal (1.7%). The rest of energy sources accounted for 0.9 percent. These were solar energy (0.4%), mains electricity (0.2%), paraffin/kerosene (0.1%), bottled gas (0.1%) and livestock dung (0.1%) (Chart 3.151).

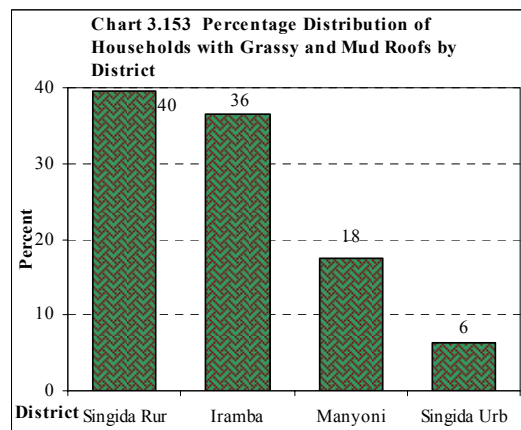
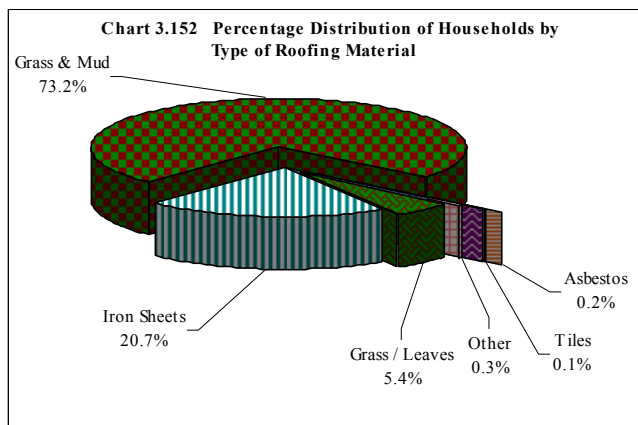


3.13.6 Roofing Materials

The most common material used for roofing the main dwelling was grass and mud and it was used by 73.2



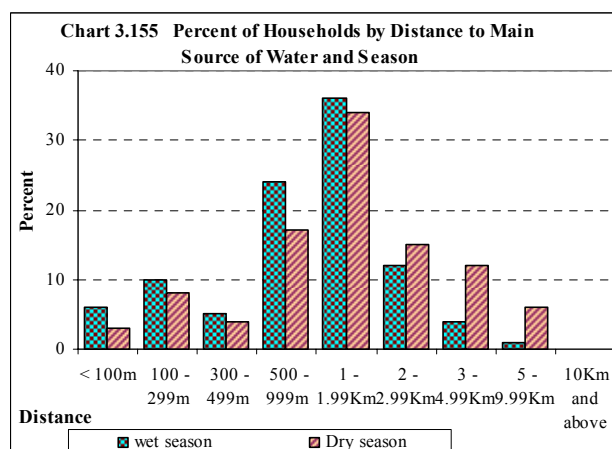
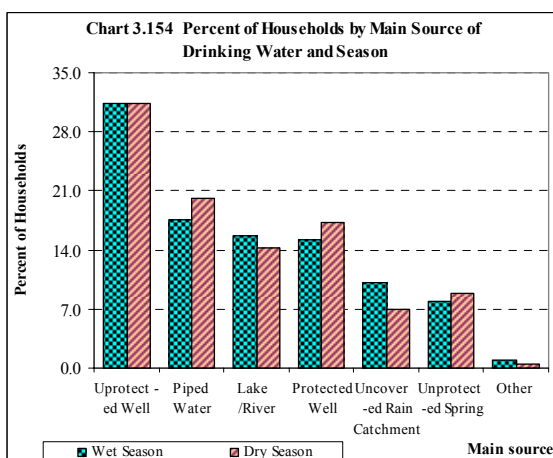
percent of the rural agricultural households. This was followed by iron sheets (20.7%), grass/leaves (5.4%), asbestos (0.2%), tiles (0.1%), and others (0.3%) (Chart 3.152)



Singida Rural district had the highest percentage of households with grass and mud roofing (40%) followed by Iramba district (36%), Manyoni (18%) and Singida Urban (6%) (Chart 3.153 and Map 3.52)

3.13.7 Access to Drinking Water

The main source of drinking water for rural agricultural households in Singida region was unprotected well (31.3 percent of households using the source for both seasons. This is followed by piped water (17.7% of households in the wet season and 20.1 percent during dry season), lake/river (15.7% of households during the wet season and 14.2% in the dry season), protected well (15.2% of households in the wet season and 17.3% during dry season) and uncovered rain water catchments



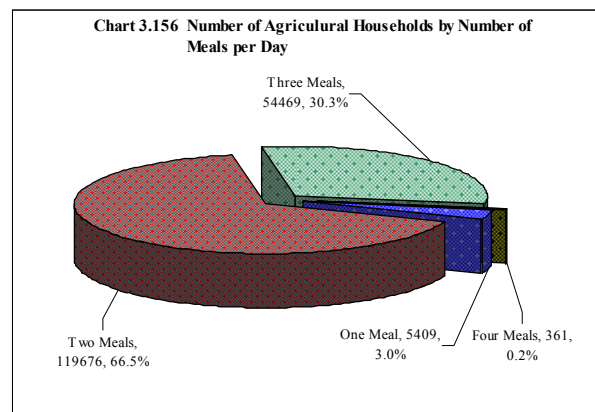
(10.1% of households in the wet season and 7.05 during dry season), unprotected spring (8.0% of household in the wet season and 8.8% during dry season), protected spring (0.9% of household for each season) and other sources (1.0% of household in the wet season and 0.4% during dry season) (Chart 3.154)

About 45 percent of the rural agricultural households in Singida region obtained drinking water within a distance of less than one kilometer during wet season compared to 32 percent of the households during the dry season. However, 55 percent of the agricultural households obtained drinking water from a distance of one or more kilometers during wet compared to 68 percent of households in the dry season. The most common distance from the source of drinking water was between 500 meters and 1 km (Chart 3.155).

3.13.8 Food Consumption Pattern

3.13.8.1 Number of Meals per Day

The majority of households in Singida region normally have 2 meals per day (66.5 percent of the households in the region). This is followed by 3 meals per day (30.3 percent) and 1 meal per day (3.0 percent). Only 0.2 percent of the households have 4 meals per day (Chart 3.156).



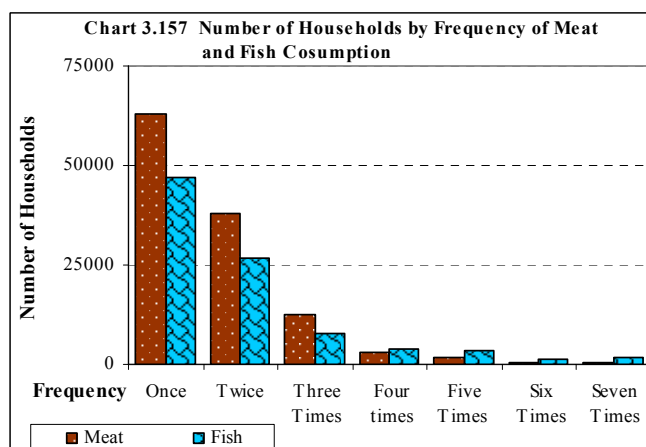
Singida Rural district had the largest percent of households eating one meal per day whilst Iramba had the highest percent of households eating 3 meals per day. (Table 3.18 and Map 3.53).

Chart 3.18: Number of Households by Number of Meals the Household Normally Takes per Day and District

District	Number of meals per day								Total
	One	%	Two	%	Three	%	Four	%	
Iramba	704	1.1	30420	48.6	31405	50.2	0	0.0	62529
Singida Rur	3474	4.7	58471	79.9	11014	15.0	237	0.3	73196
Manyoni	973	2.9	21265	64.3	10744	32.5	82	0.2	33064
Singida Urb	258	2.3	9519	85.6	1306	11.7	42	0.4	11125
Total	5409	3.0	119675	66.5	54469	30.3	361	0.2	179914

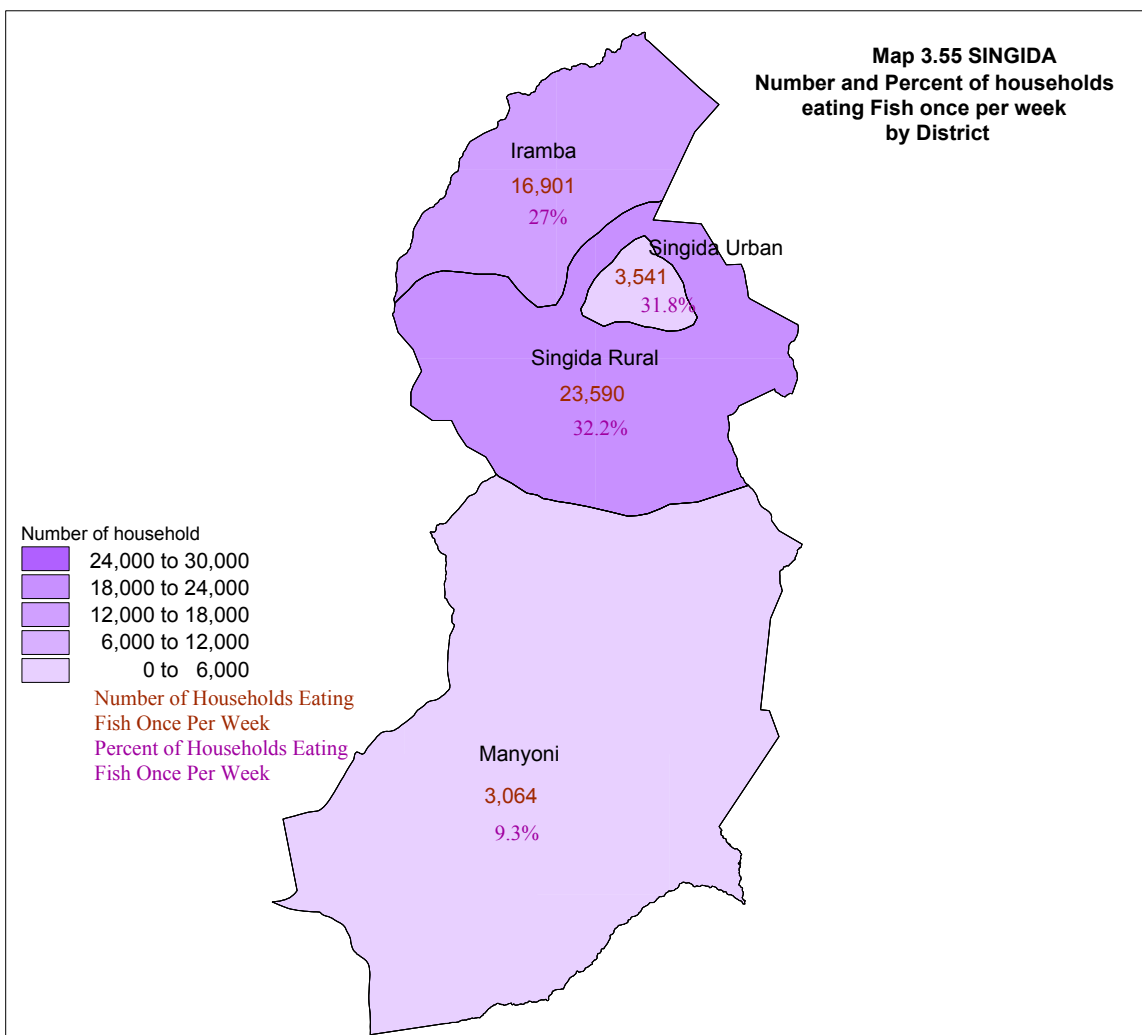
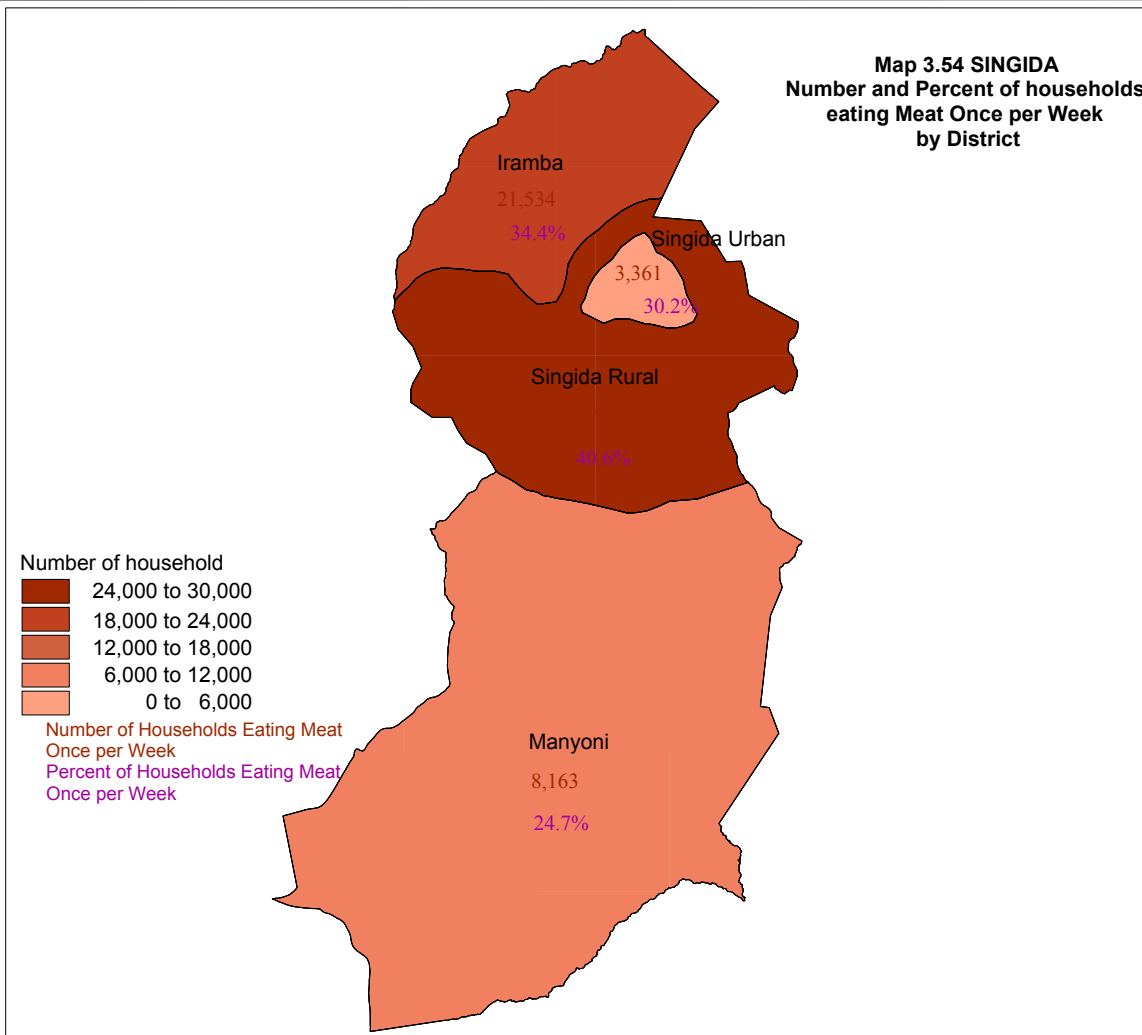
3.13.8.2 Meat Consumption Frequency

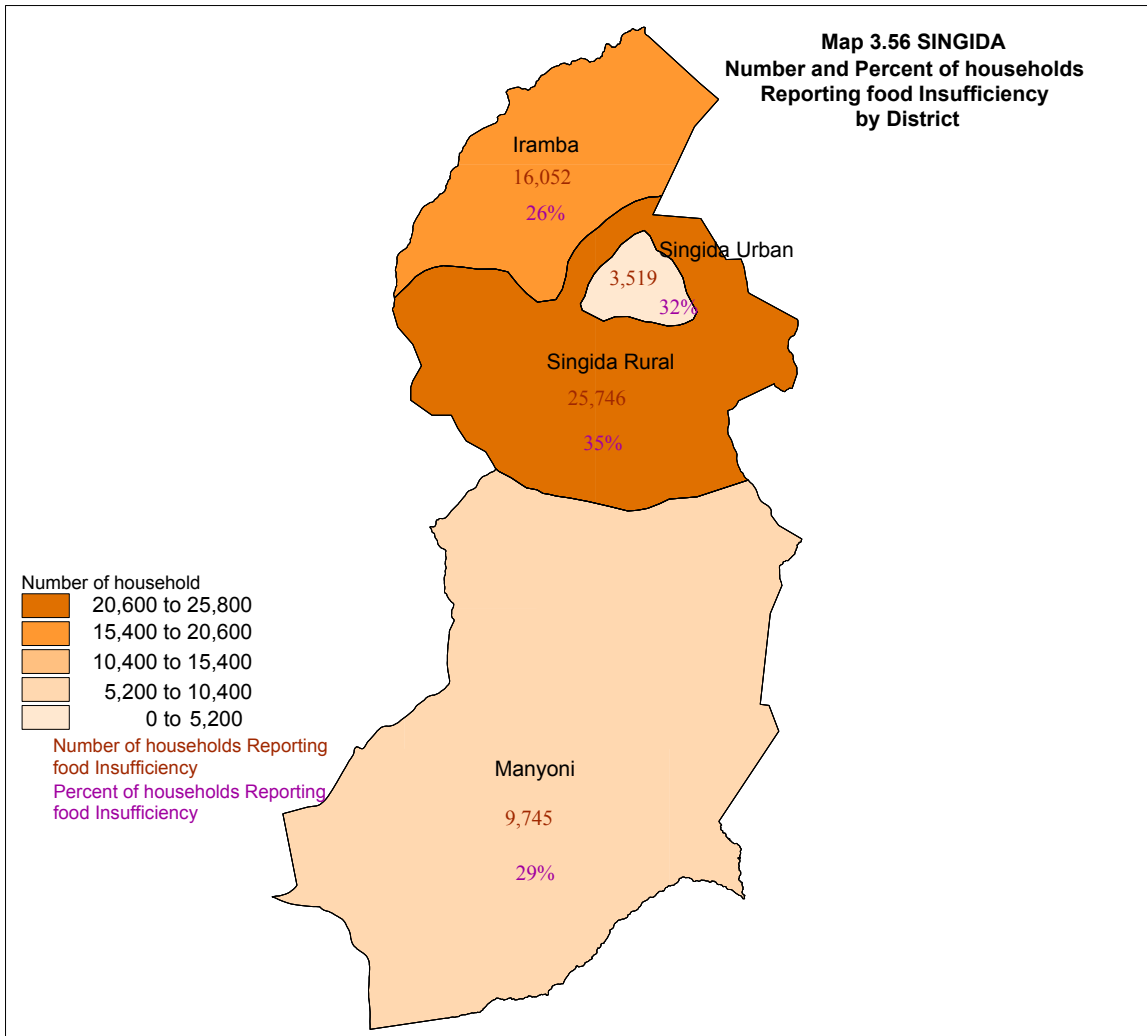
The number of agricultural households that consumed meat during the week preceding the census was 118,687 (66% of the agricultural households in Singida region) with 62,773 households (52.9 % of those who consumed meat) consuming meat only once during the respective week. This was followed by those who had meat twice during the week (31.8%). Very few households had meat three or more times during the respective week. About 34 percent of the agricultural households in Singida region did not eat meat during the week preceding the census (Chart 3.157 and Map 3.54).



3.13.8.3 Fish Consumption Frequencies

The number of agricultural households that consumed fish during the week preceding the census was 91,646 (51% of the total agricultural households in Singida region) with 47,096 households (51 % of those who consumed fish) consuming fish once during the respective week. This was followed by those who had fish two times (29%). In general, the percentage of households that consumed fish twice or more during the week in Singida region was 44,550 (49% of the agricultural





households that ate fish in the region during the respective period). About 49 percent of the agricultural households in Singida region did not eat fish during the week preceding the census (Chart 3.157 and Map 3.55).

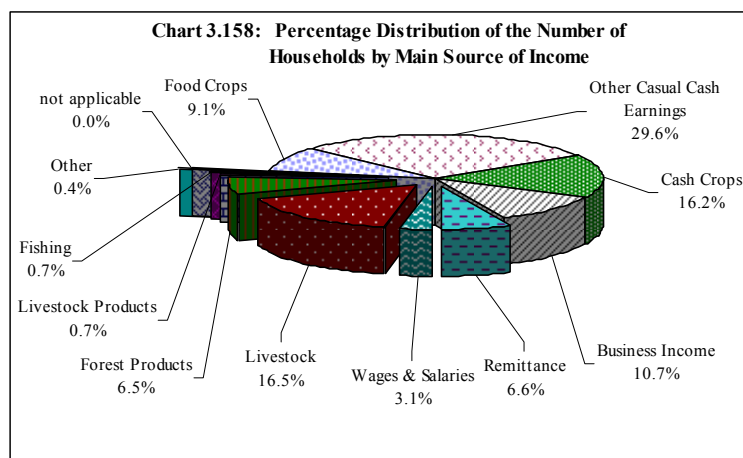
3.13.9 Food Security

In Singida region, 61,025 households (34% of the total agricultural households in the region) said they rarely experienced problems in satisfying the household food requirement. However 9,646 (5%) said they sometimes experienced problems, 17 percent often experienced problems and 14 percent always had problems in satisfying the household food requirements. About 31 percent of the agricultural households said they did not experience any food sufficiency problems (Map 3.56).

3.13.10 Main Sources of Cash Income

The main cash income of the households in Singida region was from other casual cash earnings (29.6 percent of smallholder households), followed by sales of livestock (16.5%), selling of cash crops (16.2%), businesses (10.7%) and sales of food crops (9.1%).

Only 6.6% of smallholder households reported the cash remittances as their main source of income, followed by forest products (6.5%) and wages and salaries (3.1%) (Chart 3.158).



4 SINGIDA PROFILES

This section presents the status of crops and livestock production, access to natural resources and services, demography and poverty for both the region as a whole and for each district.

4.1 Singida Region Profile

The region profile describes the status of the Agriculture sector in the region and compares it with other regions in the country.

4.2.1 District Profiles

The following district profiles highlight the characteristics of each district and compares them in relation to population, main crops and livestock, production and productivity, access to services and resources and levels of poverty.

4.2.1 Iramba

Iramba district had the second largest number of agricultural households in the region and it had among the highest percent of households involved in smallholder agriculture in the region. It was the third highest district with smallholders involved in crop farming only and those involved in crop and livestock production. It had a very small number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Iramba district was annual crop farming, followed by tree forest resources and off farm income. However, the district had the highest percent of households with no off-farm activities and the least percent of households with more than one member with off-farm income. Compared to other districts in the region, Iramba had the least percent of female headed households (20.5%) and it had the highest average age of the household head. Its average household size of 6 members per household was higher than the average for the region. Iramba has the second highest literacy rate for agricultural household members (69.7%) and this was reflected by the concomitant relatively high level of school attendance in the region. The literacy rate for the heads of household was the least in the region.

It has the second highest utilized land area per household (2.5 ha) and the allocated area is not fully utilised indicating a low level of land pressure. The total planted area is the second greatest in the region due to the presence of good wet and dry seasons; however it has the second highest planted area per household as compared to other districts.

The district was the most important for maize production in the region with a planted area of 60,761 ha; however the planted area per household was the highest in the region. Paddy production was very important with a planted area of 615 hectares and the production of sorghum was the second highest in the region. Iramba had no wheat production. Cassava production was the highest and accounted for 45 percent of the quantity harvested in the region. The district had no planted area of Irish potatoes. The production of beans in Iramba was the second highest in the region with a planted area of 4,209 ha. Oilseed crops are important in Iramba and had the highest production of sunflower in the region with a planted area of 24,225 ha. Vegetable production was important in the district. It had the second largest area planted with onions (214 ha) accounted for 25.8 percent of the onion production. Traditional cash crops were not grown in the district.

Compared to other districts in the region, Iramba has a moderate planted area with permanent crops which were dominated by mango (806 ha), banana (503 ha) and star fruit (70 ha). Other permanent crops were either not grown or were grown in very small quantities.

As with other districts in the region, most land clearing and preparation was done by hand, however slightly more land preparation was done by oxen compared to most other districts.

The use of inputs in the region was very small, however district differences existed. Iramba had the largest area planted with improved seed in Singida region and this was due to the high planted area of vegetables. The district had the largest area planted with the application of fertilizers (farm yard manure, compost and inorganic fertiliser), however most of this is farm yard manure. Compared to other districts in the region, Iramba district had the highest level of insecticide use. The use of fungicides was the third highest in the region. Also the district had the second highest use of herbicide in the region. It had the third largest irrigated area (2,867) ha. The most common source of water for irrigation was from dams and wells using hand bucket. Watering can and bucket were the most common means of water application.

The most common method of crop storage was the locally made traditional crib. The proportion of households storing crops in the district was the least in the region. The district had the third largest number of households selling crops, however for those who did not sell, the main reason for not selling was insufficient production. The third highest percent of households processing crops in Singida region was found in Iramba district, most of the processing was done by neighbours machine. The district had the highest percent of households selling processed crops to neighbours in the region and no sales were made to traders on farm, farmers association and secondary market. Although small, access to credit in the district was to both men and women headed households and the main sources of credits were family, friends, relatives and credit societies.

A comparatively large number of households received extension services in Iramba and all the service was from the government. The quality of extension services was rated between good and average by the majority of the households.

Tree farming was important in Iramba (with 54,465 planted trees) and most of the trees were Senna, Gravellis with some Leucena species. The second highest proportion of households with erosion control and water harvesting structures was found in Iramba district and most of these were erosion control bunds, however it also had high number of tree belts, water harvesting bunds, vetiver grass and drainage ditches.

The district had the second largest number of cattle in the region and most of them were indigenous. Goat production was the second largest in the region; however it was the second largest district with population of sheep in the region. It had the second largest number of pigs in the region and the largest number of chickens. The district had no layers. The district had high numbers of donkeys, ducks and moderate number of unspecified animals. It had third largest number of households that reported Tsetse and tick problems and also it had the third largest number of households de-worming livestock. The use of draft animals in the district was highest while fish farming was not practiced.

It had amongst the best access to primary schools and feeder roads compared to other districts. However, it had one of the worst access to primary markets and tarmac roads.

Tramba district had the least percent of households without toilet facilities and it had the highest percent of households owning bicycles, vehicles and television/video. It had no households using mains electricity in the district. The most common source of energy for lighting was the wick lamp and practically all households used firewood for cooking. The district had the smallest percent of households with grass roofs and 21 percent of households had iron sheet roofs. The most common source of drinking water was from surface water. It had the highest percent of households having three and two meals per day and the lowest percent having 1 meal per day. The district had the lowest percent of households that did not eat meat and the second highest percent of households that did not eat fish during the week prior to enumeration; however most households seldom had problems with food satisfaction.

4.2.2 Singida Rural

Singida Rural district had the largest number of agricultural households in the region and it had the third highest percentage of households involved in smallholder agriculture. Most smallholders were involved in crop and livestock production, followed by crops only. It had a very small number of livestock only households and pastoralists were found in the district.

The most important livelihood activity for smallholder households in Singida Rural district was annual crop farming, followed by off farm income. The district had the third highest percent of households with no off-farm activities and also the third highest percent of households with more than one member with off-farm income. Compared to other districts in the region, Singida Rural had small percent of female headed households (23.2%) and it had one of the highest average age of the household head in the region. Its household size of 5 members per household was average for the region. Singida Rural had a comparatively high literacy rate for agricultural household members and this was reflected by the district having the highest level of school attendance in the region.

It had a moderate utilized land area per household (2.0ha) and 94 percent of the allocated area was currently being utilised. The district had the second largest planted area in the region.

The district was moderately important for maize production in the region with a planted area of 42,787 ha, and the planted area per maize growing household was also moderate for the region. Paddy was grown in the district with a planted area of 1,140 ha being the second in the region. The district had the second largest area planted with sorghum in the region with 29,328 hectares. Though small, cassava production is the second highest in the region with a planted area of 964 hectares. Irish potatoes are not grown in the district. The production of beans in Singida Rural district was the second highest in the region with a planted area of 1,051ha. Singida Rural district has the third largest groundnut planted area in Singida region with a planted area per groundnut growing household of 0.52 ha. Vegetable production was important in the district. It had the third largest planted area with tomatoes (218 ha). Traditional cash crops (e.g. tobacco and cotton) were not grown in the district.

Compared to other districts in the region, Singida Rural had the largest planted area with permanent crops which were dominated by bananas (2,739 ha), sugarcane (462 ha), guava (439 ha) and mango (154 ha). Other permanent crops were either not grown or were grown in very small quantities.

As with most districts in the region, most land clearing and preparation was done by oxen, with the highest amount of land preparation in Singida Rural district being done by oxen.

The use of inputs in the region was very small, however district differences existed. Singida Rural had the second largest area planted with improved seeds in the region and had the third highest proportion of households using improved seeds. The district had the second largest planted area with the application of fertilizers (farm yard manure, compost and inorganic fertiliser), however most of these were farm yard manure. Compared to other districts in the region, Singida Rural district had low level of insecticide use. The use of fungicides was the second highest in the region. Application of herbicides was the highest. It had the second largest irrigated area (7,832 ha). The most common source of water for irrigation was from well using hand bucket. Flood was the major means of water application.

The most common method of crop storage in Singida rural district was the locally made traditional crib. The proportion of households storing crops in the district was relatively high. Singida Rural district was one of the districts with a moderate number of households selling crops, however for those that did not sell, the main reason for not selling was insufficient production. Singida Rural was among the districts with the highest percent of households processing crops in Singida region and most of the processing was done by neighbours machine. The district was among the two districts with households selling processed crops to marketing cooperatives and no sales were made to local market, secondary markets or trade at farm. Although very small, access to credit in the district was to men headed households and the main sources were commercial bank and private individuals.

A comparatively small number of households received extension services in Singida Rural district and all the service was from the government. The quality of extension services was rated between good and average by the majority of the households.

Tree farming was not important in Singida Rural (with 93,465 planted trees) and most of the trees were Ecalyptus species and Gravellis. The district had the highest proportion of households with erosion control and water harvesting structures and most of these were erosion control bunds and water harvesting bunds; however it also had a number of terraces and drainage ditches.

The district had the largest number of cattle in the region and almost all of them were indigenous. Goat production was the second largest in the region; however it had the largest population of sheep in the region. It had the largest number of pigs in the region and a large number of chickens. Many ducks, turkeys and donkeys but no rabbits were found in the district. A few households reported tsetse fly problems and many reported tick problems in Singida Rural district and it had the highest number of households de-worming livestock. The district had the second largest number of households using draft animals in the region. Fish farming was not practiced in the district.

It has amongst the poorest access to secondary schools, hospitals, district capital and tertiary market compared to other districts. It also had one of the worst access to tarmac road.

The percentage of households without toilet facility in Singida Rural district was 7.3 percent and was among the districts with the highest percent of households owning wheel barrows. Also, the district had the lowest percentage of households with vehicles, bicycles, tv/video and mobile phones. It was the only district with households using mains electricity in the region. The most common source of energy for lighting was the wick lamp and practically all households used firewood

for cooking. The roofing material for most of the households in the district was grass/mud (71.4%) and iron sheets (21.4%). The most common source of drinking water was from unprotected well. It was the second highest percent of households having two meals per day. The district had the third highest percent of households that did not eat meat and the least district in percentage of household that did not eat fish during the week prior to enumeration, however small number of households seldom had problems with food satisfaction.

4.2.3 Manyoni

Manyoni district had the largest number of agricultural households in the region and it had amongst the highest percent of households involved in smallholder agriculture in the region. Most smallholders were involved in production of crops only, followed by crops and livestock. Livestock only production and pastoralists were not found in the district.

The most important livelihood activity for smallholder households in Manyoni district was annual crop farming, followed by off farm income. However, the district has the third highest percent of households with off-farm activities and the second lowest percent of households with more than one member with off-farm income. Compared to other districts in the region, Manyoni had the third highest percent of female headed households (23.1%) and it had one of the least average age of the household head in the region. Its average household size of 5 members per household was average for the region. Manyoni has the least literacy rate for agricultural household members and this was reflected by the concomitant relatively low level of school attendance in the region. The literacy rate for the heads of household was the highest than in the region.

It has a higher utilized land area per household (2.6ha) than the regional average of 2.2 ha and 77 percent of the allocated area is currently being utilised. The total planted area is lower than in other districts in the region, however it has the highest planted area per household (3.3ha) attributed to the low number of smallholders in the district.

The district was moderately important for maize production in the region with a planted area of over 32,035 ha, however the planted area per household was 1.18 ha which was the second highest in the region. Paddy production was important in the district with the highest area planted (1,873 ha). The district had the third highest production of sorghum (8,589 ha). Irish potatoes were produced in small quantities with no wheat production. The district had the largest planted area of cassava accounting for 34 percent of the cassava planted area in the region. The production of beans in Manyoni was the second highest in the region with a planted area of 3,051 ha. Oilseed crops were important in Manyoni district with the highest area planted with groundnut (5,897 ha) accounting for 58 percent of the total planted area in the region. Vegetable production was not important in the district. Traditional crops were mainly grown in the district with 1,387 ha of tobacco and 687 ha of cotton.

Permanent crops were important in Manyoni district (34.2% of the total permanent crop planted area in Singida region was found in the district). The most prominent permanent crops in the district included mangos (2,770 ha) and guava (269 ha). Other permanent crops were either not grown or were grown in very small quantities.

As with other districts in the region, most land clearing and preparation was done by hand and small land preparation was done by oxen.

The use of inputs in the region was small, however district differences existed. Manyoni had the third largest area planted with improved seeds in Singida region and this was due to the dominance of traditional crops which need improved seed for good harvest. The district had small area planted with the application of fertilizers (farm yard manure, compost and inorganic fertilizer), however most of these were farm yard manure. Compared to other districts in the region, Manyoni district had the second smallest area applied with herbicides and the largest area applied with fungicides. The use of pesticides was relatively moderate. It had the largest irrigated area (8,405 ha). The most common source of water for irrigation was from canal using gravity. Flood was the most common means of water application and bucket/watering can were also used.

The most common method of crop storage in Manyoni was in sacks/open drum; however the proportion of households storing crops in the district was the highest in the region. The district had the highest percent of households selling crops, however for those that did not sell; the main reason for not selling was insufficient production. Manyoni district had the highest percent of households processing crops in the region and most of the processing was done to neighbours machine. However, the district had the second highest percent of households processing crops on farm by hand. The district had moderate percent of households selling processed crops. The district had the highest percent of households receiving credit with slightly more male headed household accessed credit than female headed households.

A comparatively smaller number of households received extension services in Manyoni district and most of the service was from the government. The quality of extension services was rated between good and very good by the majority of the households.

Tree farming was important in Manyoni district (with 16,302 planted trees) and most of these were Moringa species with some Senna species. The least proportion of households with water harvesting bunds was found in Manyoni district and it also had the third largest number of erosion control bunds.

The district had a moderate number of cattle in the region and most of these were indigenous. Goat and sheep production was small compared to other districts. It had the smallest number of pigs in the region and the third largest number of chickens, all of which are indigenous. The largest number of layers was found in Manyoni district. The district had small number of ducks; however it had no rabbits, turkeys and donkeys. The largest percent of households reported tsetse fly and tick problems. The district had the least number of household de-worming livestock. The use of draft animals in the district was low with (12%) of household using draft animals. Fish farming was not practiced in the district.

It had amongst the best access to feeder roads, primary schools, and all weather roads compared to other districts. However, it had one of the worst accesses to tarmac roads, district capital and hospitals.

Manyoni district had the highest percent of households with no toilet facilities and it had no households owning landline, mains electricity, solar, biogas and small percentage of households had vehicles, wheel barrows, Tv/video and mobile phones. The most common source of energy for lighting was the wick lamp and practically all households used firewood for cooking. The district had a high percent of households with grass/mud roofs (70.1%) with 18.2 percent of households having iron sheets. The most common source of drinking water was piped water. Sixty four point three percent of the households in the district reported having two meals per day and 32.5% only 0.2 percent of the household reported having

three meals per day with only 0.2 percent of households having more than four meals per day. The district had the highest percent of households that did not eat meat or fish during the week prior to enumeration; however few households seldom had problems with food satisfaction.

4.2.4 Singida Urban

Singida Urban district had the least number of households in the region and it had the highest percent of households involved in smallholder agriculture in the region. Most smallholders were involved in crop farming only, followed by crop and livestock production. The district had no households with livestock only or pastoralists.

The most important livelihood activity for smallholder households in Singida Urban district was annual crop farming, followed by off farm income and tree/forest resources. However, the district had the second lowest percent of households with off-farm activities and also, the second highest percent of households with more than one member with off-farm income. Compared to other districts in the region, Singida Urban had the highest percent of female headed households (26.2%) and it had the third highest average age of the household head. Its average household size of 5 members per household was average for the region. Singida Urban had the highest literacy rate for agricultural household members and this was reflected by the concomitant relatively low level of school attendance in the region. The literacy rate for the heads of household was the second highest in the region.

It had the smallest utilized land area per household (1.3ha) and the allocated area was almost fully utilized indicating a high level of land pressure. The total planted area was greater than in other districts in the region due to the presence of good wet and dry seasons, however it had the lowest planted area per household (1.4ha) attributed to the high number of smallholders in the district.

The district was moderately important for maize production in the region with a planted area of over 1,694 ha, however the planted area per household was the least in the region. Paddy production was not important with a planted area of only 39 hectares and the production of sorghum was very small. Singida Urban was among the districts that did not produce wheat and Irish potatoes. The production of beans in Singida Urban was the least compared to other districts in the region with a planted area of 17 hectares. Oilseed crops were not important in Singida Urban while simsim and groundnuts were not grown in the district. Vegetable production was less important in the district. It had the second largest area planted with tomatoes (82 ha) and the third largest area planted with onions (12 ha) in the region and accounted for 22 percent of the tomato production, 1.5 percent of the onion production in the region. Traditional cash crops (e.g. tobacco and cotton) were not grown in the district.

Compared to other districts in the region, Singida Urban had the area smallest area planted with permanent crops which were dominated by guava (545 ha) and banana (45 ha) and mango (43 ha). Other permanent crops were either not grown or are grown in very small quantities.

As with other districts in the region, most land clearing and preparation was done by hand, however slightly more land preparation was done by oxen compared to most other districts.

The use of inputs in the region was very small, however district differences existed. Singida Urban had the smallest area planted with improved seeds in Singida region. The district had the smallest area planted with the application of fertilizers

(farm yard manure, compost and inorganic fertiliser), however most were farm yard manure. Compared to other districts in the region, Singida Urban district had low level of insecticides use. The use of fungicides and herbicides were low compared to other districts. It had the smallest area under irrigation in the region (1,113 ha). The most common source of water for irrigation was from well using hand bucket. Bucket/watering can was the most common means of water application.

The most common method of crop storage was the locally made traditional crib; however the proportion of households not storing crops was the highest in the region. The district had the lowest number of households selling crops, however for those that did not sell; the main reason for not selling was insufficient production. The least percent of households processing crops in Singida region was found in Singida Urban district and most of the processing was done by neighbours machine. The district had a high percent of households selling processed crops to neighbours and no sales were made to traders on farm. Although very small, access to credit in the district was to women headed households and the main sources of credit were religious organisations, NGO and project.

A comparatively large number of households received extension services in Singida district and all the service was from the government. The quality of extension services was rated between good and average by the majority of the households.

Tree farming was important in Singida Urban (with 22,410 planted trees) and most of these were Eucalyptus species with some Gravellia species and Syzygium species. The lowest proportion of households with erosion control and water harvesting structures was found in Singida Urban district and most of these were erosion control bunds; however it also has high number of water harvesting bunds and drainage ditches.

The district has the least number of cattle in the region and most of them were indigenous. Goat and sheep production were the smallest in the region with a total number of 37,409 goats and 16,729 sheep; It had the smallest number of pigs and chicken in the region. The district had no layers and the second largest number of broilers in the region. The district had a moderate number of ducks and rabbits with no turkeys or donkeys. The smallest number of households reporting Tsetse fly and tick problems was in Singida Urban and it had the third largest number of households de-worming livestock. The use of draft animals in the district was very small and fish farming was practiced

It was amongst the districts with the best access to feeder roads, primary schools and all weather roads compared to other districts. However, it had one of the worst accesses to tertiary market and tarmac roads.

Singida Urban district had the second highest percent of households with no toilet facilities and it had the lowest percent of households owning pressing iron, vehicles, and land line. It had the no households using mains electricity in the region. The most common source of energy for lighting was the wick lamp and practically all households used firewood for cooking. The district had the second largest percent of households with grass/mud roofs (74.5%), with 23.2 percent of households having iron sheets. The most common source of drinking water was from protected well. It had the highest percent of households having two meals per day and the lowest percent with 3 meals per day. The district had the second highest percent of households that did not eat meat and was the third highest percent of household that did not eat fish during the week prior to enumeration, however very few households seldom had problems with food satisfaction.

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NUMBER OF AGRICULTURE HOUSEHOLDS

2.1 TYPE OF AGRICULTURE HOUSEHOLD: Number of Agriculture households by type of household and District during 2002/03 Agriculture Year

Agriculture, Non Agriculture and Urban Households								
District	Rural household involved in Agriculture	% of Total rural households	Rural households NOT involved in Agriculture	% of Total rural households	Total rural households	% of Total rural households	Urban households	Total number of Household (from 2002 pop. Census)
	Number	%	Number	%	Number	%	Number	Number
Iramba	62,255	96	2,408	4	64,663	90	7,014	71,677
Singida Rural	72,954	98	1,374	2	74,329	95	4,165	78,494
Manyoni	33,065	95	1,812	5	34,877	81	8,012	42,889
Singida Urban	11,125	97	375	3	11,500	47	13,012	24,512
Total	179,400	97	5,969	3	185,368	85	32,204	217,572

2.2 TYPE OF AGRICULTURE HOUSEHOLD: Number of Agriculture Households By Type of Holding and District, 2002/03 Agricultural Year

	Crops Only		Livestock Only		Crops & Livestock		Total Number of agriculture Household	Total Number of Households Growing Crops	Total Number of Households Rearing Livestock
	Number	%	Number	%	Number	%			
Iramba	30,411	48.6	273	0.4	31,845	50.9	62,528	62,255	32,118
Singida Rural	33,761	46.1	242	0.3	39,193	53.5	73,197	72,954	39,436
Manyoni	27,088	81.9	0	0.0	5,977	18.1	33,065	33,065	5,977
Singida Urban	5,577	50.1	0	0.0	5,549	49.9	11,125	11,125	5,549
Total	96,837	53.8	516	0.3	82,563	45.9	179,915	179,400	83,079

RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES

3.0: Number of Agriculture Households and Average Household Size by Sex of the Head of Household and District, 2002/03 Agriculture Year

District	Male			Female			Total		Average Household Size
	Number of Households	%	Average Household Size	Number of Households	%	Average Household Size	Number of Households	%	
Iramba	172,336	50	6	173,435	50	5	345,770	100	6
Singida Rural	178,701	50	5	179,931	50	4	358,632	100	5
Manyoni	84,660	49	6	88,830	51	4	173,491	100	5
Singida Urban	28,177	48	6	30,722	52	4	58,899	100	5
Total	463,874	50	5	472,918	50	4	936,792	100	5

Table 3.1 The Livelihood Activities/Source of Income of the Households Ranked in Order of Importance by District

District	Livelihood Activity						
	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Iramba	1	6	4	3	5	7	2
Singida Rural	1	5	4	2	6	7	3
Manyoni	1	6	4	2	5	7	3
Singida Urban	1	6	4	2	5	7	3
Total	1	6	4	3	5	7	2

Table 3.1a RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: First Most Importance

District	Annual Crop Farming		Permanent Crop Farming		Livestock Keeping / Herding		Off Farm Income		Remittances		Fishing / Hunting & Gathering		Tree / Forest Resources
Iramba	54,364	380,545	0	0	1,233	8,630	4,319	30,230	2,114	14,801	211	1,476	288
Singida Rural	45,408	317,857	124	866	6,616	46,313	18,818	131,727	991	6,940	0	0	744
Manyoni	8,817	61,720	255	1,786	2,950	20,648	14,970	104,791	1,403	9,823	0	0	4,074
Singida Urban	4,693	32,853	0	0	1,022	7,154	3,699	25,891	526	3,685	85	596	1,015
Total	113,282	792,975	379	2,652	11,821	82,745	41,806	292,639	5,036	35,250	296	2,072	6,121

Table 3.1b RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Second Most Importance

District	Annual Crop Farming		Permanent Crop Farming		Livestock Keeping / Herding		Off Farm Income		Remittances		Fishing / Hunting & Gathering		Tree / Forest Resources
Iramba	7,064	42,383	419	2,514	23,487	140,925	16,355	98,131	3,783	22,699	316	1,898	10,155
Singida Rural	25,834	155,006	1,194	7,161	21,166	126,993	18,327	109,961	1,681	10,085	495	2,970	5,077
Manyoni	17,023	102,136	493	2,957	2,124	12,742	6,650	39,902	1,652	9,913	76	455	4,066
Singida Urban	4,783	28,697	84	505	2,912	17,470	2,112	12,669	402	2,412	0	0	909
Total	54,704	328,222	2,190	13,137	49,688	298,130	43,444	260,663	7,518	45,109	887	5,322	20,207

Table 3.1c RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Third Most Importance

District	Annual Crop Farming		Permanent Crop Farming		Livestock Keeping / Herding		Off Farm Income		Remittances		Fishing / Hunting & Gathering		Tree / Forest Resources
Iramba	820	4,099	563	2,817	4,869	24,345	14,899	74,496	3,632	18,160	422	2,109	33,578
Singida Rural	1,464	7,318	1,542	7,710	10,417	52,083	15,984	79,921	2,431	12,153	246	1,228	38,204
Manyoni	5,566	27,829	501	2,504	2,778	13,892	4,399	21,994	652	3,259	162	811	16,303
Singida Urban	1,419	7,094	244	1,218	1,530	7,652	1,299	6,495	377	1,884	42	211	5,367
Total	9,268	46,341	2,850	14,248	19,594	97,971	36,581	182,906	7,091	35,457	872	4,358	93,452

Table 3.1d RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Fourth Most Importance

District	Annual Crop Farming		Permanent Crop Farming		Livestock Keeping / Herding		Off Farm Income		Remittances		Fishing / Hunting & Gathering		Tree / Forest Resources
Iramba	0	0	1,703	6,811	3,664	14,658	8,656	34,625	5,089	20,356	245	980	14,933
Singida Rural	248	993	3,388	13,550	4,196	16,786	7,056	28,223	2,275	9,101	125	500	25,163
Manyoni	1,155	4,619	563	2,253	4,862	19,448	2,447	9,789	1,907	7,628	85	340	5,965
Singida Urban	230	922	1,132	4,527	296	1,182	1,286	5,144	212	848	43	170	2,481
Total	1,633	6,533	6,785	27,141	13,019	52,074	19,445	77,780	9,483	37,933	498	1,991	48,542

Table 3.1e RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Fifth Most Importance

District	Annual Crop Farming		Permanent Crop Farming		Livestock Keeping / Herding		Off Farm Income		Remittances		Fishing / Hunting & Gathering		Tree / Forest Resources
Iramba	144	433	852	2,555	1,279	3,836	988	2,965	1,704	5,112	0	0	2,053
Singida Rural	0	0	5,346	16,039	1,226	3,678	1,171	3,514	249	746	121	362	2,202
Manyoni	338	1,014	494	1,481	913	2,738	582	1,745	654	1,961	85	254	914
Singida Urban	0	0	659	1,978	43	128	168	504	170	510	0	0	169
Total	482	1,447	7,351	22,053	3,460	10,379	2,909	8,727	2,776	8,329	205	616	5,339

Table 3.1f RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Sixth Most Importance

District	Annual Crop Farming		Permanent Crop Farming		Livestock Keeping / Herding		Off Farm Income		Remittances		Fishing / Hunting & Gathering		Tree / Forest Resources
Iramba	0	0	428	856	143	285	140	281	285	570	0	0	0
Singida Rural	0	0	614	1227	0	0	0	0	0	0	0	0	103
Manyoni	0	0	0	0	84	169	160	321	158	317	0	0	0
Singida Urban	0	0	0	0	0	0	43	85	0	0	42	84	0
Total	0	0	1,041	2083	227	454	343	687	444	887	42	84	103

Table 3.1g RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Seventh Most Importance

District	Annual Crop Farming		Permanent Crop Farming		Livestock Keeping / Herding		Off Farm Income		Remittances		Fishing / Hunting & Gathering		Tree / Forest Resources
Iramba	0	0	0	0	0	0	144	144	0	0	0	0	141
Singida Rural	0	0	372	372	124	124	125	125	0	0	0	0	0
Manyoni	0	0	0	0	0	0	0	0	0	0	0	0	0
Singida Urban	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	372	372	124	124	269	269	0	0	0	0	141

Table 3.1g RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Seventh Most Importance

District	Annual Crop Farming		Permanent Crop Farming		Livestock Keeping / Herding		Off Farm Income		Remittances		Fishing / Hunting & Gathering		Tree / Forest Resources
Iramba	0	427,460	0	15,552	0	192,678	144	240,871	0	81,699	0	6,463	141
Singida Rural	0	481,174	372	46,925	124	245,977	125	353,472	0	39,025	0	5,059	0
Manyoni	0	197,318	0	10,981	0	69,637	0	178,541	0	32,901	0	1,860	0
Singida Urban	0	69,566	0	8,228	0	33,586	0	50,788	0	9,339	0	1,061	0
Total	0	1,175,519	372	81,685	124	541,878	269	823,671	0	162,964	0	14,444	141

District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Iramba	427,460	15,552	192,678	240,871	81,699	6,463	296,866
Singida Rural	481,174	46,925	245,977	353,472	39,025	5,059	334,149
Manyoni	197,318	10,981	69,637	178,541	32,901	1,860	161,033
Singida Urban	69,566	8,228	33,586	50,788	9,339	1,061	49,829
Total	1,175,519	81,685	541,878	823,671	162,964	14,444	841,878
Iramba	1	6	4	3	5	7	2
Singida Rural	1	5	4	2	6	7	3
Manyoni	1	6	4	2	5	7	3
Singida Urban	1	6	4	2	5	7	3
Total	1	6	4	3	5	7	2

HOUSEHOLDS DEMOGRAPHYS

3.2 HOUSEHOLDS DEMOGRAPHICS: Number of Agricultural Household Members By Sex and Age Group, 2002/03 Agricultural Year (row %)

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Less than 4	61,961	50	62,486	50	124,446	100
05 - 09	75,426	50	76,808	50	152,234	100
10 - 14	74,260	52	67,770	48	142,030	100
15 - 19	52,220	52	48,907	48	101,127	100
20 - 24	33,478	47	37,248	53	70,726	100
25 - 29	28,086	47	31,119	53	59,205	100
30 - 34	24,456	44	31,590	56	56,046	100
35 - 39	22,415	47	25,255	53	47,670	100
40 - 44	20,633	51	19,597	49	40,230	100
45 - 49	15,963	47	17,899	53	33,862	100
50 - 54	13,061	47	14,689	53	27,750	100
55 - 59	10,044	52	9,171	48	19,215	100
60 - 64	10,146	53	8,999	47	19,145	100
65 - 69	6,745	47	7,714	53	14,459	100
70 - 74	6,297	52	5,740	48	12,036	100
75 - 79	4,014	51	3,839	49	7,853	100
80 - 84	2,704	58	1,990	42	4,694	100
Above 85	1,966	48	2,097	52	4,063	100
Total	463,874	50	472,918	50	936,792	100

3.3 HOUSEHOLDS DEMOGRAPHICS: Number of Agricultural Household Members By Sex and Age Group, 2002/03 Agricultural Year (col %)

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Less than 4	61,961	13	62,486	13	124,446	13
05 - 09	75,426	16	76,808	16	152,234	16
10 - 14	74,260	16	67,770	14	142,030	15
15 - 19	52,220	11	48,907	10	101,127	11
20 - 24	33,478	7	37,248	8	70,726	8
25 - 29	28,086	6	31,119	7	59,205	6
30 - 34	24,456	5	31,590	7	56,046	6
35 - 39	22,415	5	25,255	5	47,670	5
40 - 44	20,633	4	19,597	4	40,230	4
45 - 49	15,963	3	17,899	4	33,862	4
50 - 54	13,061	3	14,689	3	27,750	3
55 - 59	10,044	2	9,171	2	19,215	2
60 - 64	10,146	2	8,999	2	19,145	2
65 - 69	6,745	1	7,714	2	14,459	2
70 - 74	6,297	1	5,740	1	12,036	1
75 - 79	4,014	1	3,839	1	7,853	1
80 - 84	2,704	1	1,990	0	4,694	1
Above 85	1,966	0	2,097	0	4,063	0
Total	463,874	100	472,918	100	936,792	100

3.4 HOUSEHOLDS DEMOGRAPHICS: Number of Agricultural Household Members By Sex and District, 2002/03 Agricultural Year

District	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Iramba	172,336	50	173,435	50	345,770	100
Singida Rural	178,701	50	179,931	50	358,632	100
Manyoni	84,660	49	88,830	51	173,491	100
Singida Urban	28,177	48	30,722	52	58,899	100
Total	463,874	50	472,918	50	936,792	100

3.5 HOUSEHOLDS DEMOGRAPHICS: Number of Agriculture Household Members 5 years and above Who Can Read and Write Languages By Type of Language and District, 2002/03 Agricultural Year

District	Read & Write									
	Swahili		Swahili & English		Any Other Language		Don't Read / Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	189,432	65	15,025	5	0	0	88,988	30	293,445	100
Singida Rural	149,312	46	74,368	23	0	0	100,316	31	323,996	100
Manyoni	64,567	44	22,686	15	81	0	59,195	40	146,528	100
Singida Urban	30,065	62	5,842	12	0	0	12,470	26	48,377	100
Total	433,376	53	117,921	15	81	0	260,968	32	812,346	100

3.6 HOUSEHOLDS DEMOGRAPHICS: Number of Agricultural Household Members 5 years and above By School Attendancy and District , 2002/03 Agricultural Year

District	School Attendancy							
	Attending School		Completed		Never Attended to School		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	96,219	33	110,939	38	86,287	29	293,445	100
Singida Rural	125,431	39	127,743	39	70,822	22	323,996	100
Manyoni	42,422	29	54,350	37	49,757	34	146,528	100
Singida Urban	19,666	41	19,488	40	9,222	19	48,377	100
Total	283,737	35	312,521	38	216,088	27	812,346	100

3.7 HOUSEHOLDS DEMOGRAPHICS: Number of Agricultural Household Members By Main Activity and District, 2002/03 Agricultural Year

District	Main Activity							
	Crop/Seaweed Farming		Herding		Livestock Pastoralist		Fishing	
	Number	%	Number	%	Number	%	Number	%
Iramba	129,780	44	26,453	9	289	0	1,054	0
Singida Rural	129,711	40	38,245	12	733	0	125	0
Manyoni	74,178	51	9,657	7	0	0	0	0
Singida Urban	19,257	40	5,402	11	0	0	84	0
Total	352,926	43	79,757	10	1,022	0	1,264	0

cont.... HOUSEHOLDS DEMOGRAPHICS: Number of Agricultural Household Members By Main Activity and District, 2002/03 Agricultural Year

District	Main Activity							
	Government / Parastatal		Private - NGO / Mission / etc		Self Employed (Non Farming) with Employees		Self Employed (Non Farming) without Employees	
	Number	%	Number	%	Number	%	Number	%
Iramba	2,626	1	2,525	1	144	0	2,689	1
Singida Rural	2,190	1	3,863	1	1,728	1	9,671	3
Manyoni	745	1	522	0	81	0	1,635	1
Singida Urban	169	0	414	1	184	0	428	1
Total	5,729	1	7,324	1	2,136	0	14,423	2

cont.... HOUSEHOLDS DEMOGRAPHICS: Number of Agricultural Household Members By Main Activity and District, 2002/03 Agricultural Year

District	Main Activity							
	(Non Agriculture)		Not Working & Available		Not Working & Unavailable		Housewife	
	Number	%	Number	%	Number	%	Number	%
Iramba	1,141	0	562	0	144	0	417	0
Singida Rural	720	0	473	0	0	0	1,113	0
Manyoni	1,769	1	418	0	0	0	743	1
Singida Urban	305	1	43	0	0	0	43	0
Total	3,934	0	1,495	0	144	0	2,315	0

cont.... HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Main Activity and District, 2002/03 Agricultural Year

District	Main Activity							
	Student		Retired / Sick / Disabled		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	93,234	32	30,565	10	1,823	1	293,445	100
Singida Rural	121,979	38	12,710	4	735	0	323,996	100
Manyoni	41,288	28	14,601	10	892	1	146,528	100
Singida Urban	19,296	40	2,583	5	170	0	48,377	100
Total	275,798	34	60,458	7	3,619	0	812,346	100

3.8 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of involvement in Farming Activity and District, 2002/03 Agricultural Year

District	Involvement in Farming									
	Works Full-time on Farm		Works Part-time on Farm		Rarely Works on Farm		Never Works on Farm		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	97,961	33	11,322	4	64,715	22	119,447	41	293,445	100
Singida Rural	68,086	21	17,090	5	153,175	47	85,645	26	323,996	100
Manyoni	10,227	7	22,874	16	86,272	59	27,155	19	146,528	100
Singida Urban	9,116	19	2,371	5	23,013	48	13,877	29	48,377	100
Total	185,389	23	53,656	7	327,175	40	246,125	30	812,346	100

3.9 HOUSEHOLDS DEMOGRAPHYS: Number of Agriculture Household Members By Level of Formal Education Completion and District, 2002/03 Agriculture Year

District	Education Level							
	Under Standard One		Standard One		Standard Two		Standard Three	
	Number	%	Number	%	Number	%	Number	%
Iramba	431	0	392	0	1,670	2	1,128	1
Singida Rural	124	0	741	1	2,184	2	1,949	2
Manyoni	82	0	82	0	1,837	3	1,875	3
Singida Urban	42	0	42	0	211	1	210	1
Total	679	0	1,257	0	5,903	2	5,163	2

cont.... Number of Agriculture Household Members By Level of Formal Education Completion and District, 2002/03 Agriculture Year

District	Education Level							
	Standard Four		Standard Five		Standard Six		Standard Seven	
	Number	%	Number	%	Number	%	Number	%
Iramba	9,843	9	2,619	2	1,898	2	87,460	79
Singida Rural	10,314	8	1,476	1	989	1	102,185	80
Manyoni	6,639	12	1,709	3	1,879	3	36,996	68
Singida Urban	1,803	9	212	1	422	2	15,536	80
Total	28,599	9	6,016	2	5,188	2	242,176	77

cont.... Number of Agriculture Household Members By Level of Formal Education Completion and District, 2002/03 Agriculture Year

District	Education Level							
	Standard Eight		Education		Pre Form One		Form One	
	Number	%	Number	%	Number	%	Number	%
Iramba	1,131	1	143	0	139	0	143	0
Singida Rural	2,023	2	353	0	0	0	123	0
Manyoni	714	1	0	0	0	0	84	0
Singida Urban	170	1	248	1	0	0	0	0
Total	4,038	1	744	0	139	0	350	0

cont.... Number of Agriculture Household Members By Level of Formal Education Completion and District, 2002/03 Agriculture Year

District	Education Level							
	Form Two		Form Three		Form Four		Form Five	
	Number	%	Number	%	Number	%	Number	%
Iramba	959	1	0	0	1,838	2	0	0
Singida Rural	586	0	0	0	2,525	2	0	0
Manyoni	164	0	170	0	883	2	0	0
Singida Urban	83	0	0	0	381	2	43	0
Total	1,792	1	170	0	5,628	2	43	0

cont.... Number of Agriculture Household Members By Level of Formal Education Completion and District,

2002/03 Agriculture Year

District	Education Level									
	Form Six		Education		Education		Adult Education		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	0	0	137	0	0	0	1,009	1	110,939	100
Singida Rural	125	0	240	0	118	0	1,687	1	127,743	100
Manyoni	78	0	65	0	0	0	1,092	2	54,350	100
Singida Urban	0	0	0	0	0	0	85	0	19,488	100
Total	203	0	442	0	118	0	3,873	1	312,521	100

3.10 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Households and Average Household Size By Sex of the Head

District	Male			Female			Total		
	Number of Household Members	Number of Households	Average Household Size	Number of Household Members	Number of Households	Average Household Size	Number of Household Members	Number of Households	Average Household Size
Iramba	286,517	49,682	6	59,253	12,847	5	345,770	62,528	6
Singida Rural	288,561	56,246	5	70,071	16,951	4	358,632	73,197	5
Manyoni	143,554	25,418	6	29,937	7,647	4	173,491	33,065	5
Singida Urban	46,101	8,208	6	12,798	2,917	4	58,899	11,125	5
Total	764,733	139,553	5	172,059	40,362	4	936,792	179,915	5

3.11 HOUSEHOLD DEMOGRAPHYS: Number of Agricultural Households Involved in Off Farm Income Generating Activity By Number of Off Farm Income Activities and District, 2002/03 Agricultural Year

District	Off farm income							
	One Off Farm Income		Two Off Farm Income		More than Two Off Farm Income		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Iramba	37,170	73	9,758	19	4,262	8	51,190	100
Singida Rural	43,622	66	17,787	27	4,395	7	65,804	100
Manyoni	6,210	19	18,821	57	7,870	24	32,901	100
Singida Urban	5,589	61	2,642	29	910	10	9,141	100
Total	92,591	58	49,008	31	17,437	11	159,036	100

3.12 Number of Heads of Agricultural Households reporting Maximum level of education attained by Education Status, 2002/03 Agricultural Year

Education Status	Maximum Education Level Attained							
	No Education	Primary Education	Post Primary Education	Secondary Education	Post Secondary Education	University & Equivalent Education	Adult Education	Total
Attending School	0	871	33	0	0	0	0	903
Completed	185	111,065	326	3,876	185	118	2,257	118,012
Never Attended to School	61,000	0	0	0	0	0	0	61,000
Total	61,185	111,935	359	3,876	185	118	2,257	179,915

3.13 HOUSEHOLDS DEMOGRAPHYS: Mean, Median, Mode of Age of Head of Agricultural Household and District

District	Male			Female			Total		
	Mean	Median	Mode	Mean	Median	Mode	Mean	Median	Mode
Iramba	46	43	30	52	52	65	48	45	40
Singida Rural	45	42	40	52	50	45	47	45	40
Manyoni	44	41	35	47	46	65	45	42	40
Singida Urban	46	42	31	47	46	50	46	44	30
Total	45	42	40	51	50	65	47	44	40

3.14 Time Series of male and Female Headed Households

Type of Holding	NCSA 1994/95	EAS 1995/96	EAS 1996/97	IAS 1997/98	DIAS 1998/99	NCSA 2002/03
Male Headed (Number in Thousands)	129,691	137,363	140,272	157,641	144,490	139,553
Female Headed (Number in Thousands)	39,069	34,361	34,302	42,722	50,926	40,362
Total	168,760	171,724	174,574	200,363	195,416	179,915
Male Headed (Percentage)	77	80	80	79	74	78
Female Headed (Percentage)	23	20	20	21	26	22
Total	100	100	100	100	100	100

3.15 Literacy Rate of Heads of Households by Sex and District

District	Literacy								
	Know			Don't know			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Iramba	108,988	95,469	204,457	37,683	51,305	88,988	146,671	146,773	293,445
Singida Rural	117,335	106,345	223,680	43,807	56,509	100,316	161,142	162,854	323,996
Manyoni	45,720	41,614	87,334	25,400	33,795	59,195	71,120	75,409	146,528
Singida Urban	17,918	17,988	35,907	5,062	7,408	12,470	22,980	25,396	48,377
Total	289,961	261,417	551,378	111,952	149,016	260,968	401,913	410,433	812,346

LAND ACCESS/OWNERSHIP

4.1 LAND ACCESS/OWNERSHIP: Number of Agricultural Households By Type of Land Ownership/Tenure and District, 2002/03 Agricultural Year

District	Land Access														Total number of Households
	Leased/Certificate of Ownership		Area Owned Under Customary Law		Bought		Rented		Borrowed		Households with Area Shared Cropped		Households with Area under Other Forms of Tenure		
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Iramba	3,958	6	47,355	76	7,919	13	13,416	22	5,030	8	1,111	2	5,642	9	62,255
Singida Rural	5,544	8	63,662	87	4,873	7	3,162	4	3,385	5	1,209	2	3,062	4	72,954
Manyoni	649	2	29,948	91	2,627	8	633	2	1,846	6	222	1	829	3	33,065
Singida Urban	437	4	10,647	96	42	0	337	3	127	1	169	2	413	4	11,125
Total	10,588	6	151,612	85	15,461	9	17,549	10	10,388	6	2,711	2	9,946	6	179,400

**4.2 LAND ACCESS/OWNERSHIP: Area of Land by type of Ownership/Tenure (Hectare) and District, 2002/03
Agricultural Year**

District	Land Access/ Ownership (Hectare)							Total
	Area Leased/Certificate of Ownership	Area Owned Under Customary Law	Area Bought From Others	Area Rented From Others	Area Borrowed From Others	Area Shared Cropped From Others	Area under Other Forms of Tenure	
Iramba	8,650	122,462	12,096	16,975	4,020	968	10,292	175,464
Singida Rural	9,065	123,211	8,085	5,215	4,509	2,653	2,801	155,538
Manyoni	931	91,144	19,564	819	2,102	102	1,635	116,296
Singida Urban	440	14,744	34	290	98	87	158	15,852
Total	19,086	351,560	39,779	23,298	10,730	3,811	14,887	463,150

LAND USE

5.1 LAND USE: Number of Agricultural Households By Type of Land Use and District, 2002/03 Agricultural Year

District	Land Use												Total Number of Household
	Households with Temporary Mono Crops	Households with Temporary Mixed Crops	Households with Permanent Mono Crops	Households with Permanent Mixed Crops	Households with Permanent / Annual Mix	Households with Pasture	Households with Fallow	Households with Natural Bush	Households with Planted Trees	Households Renting to Others	Households with Unusable Land	Households with Uncultivated Usable Land	
Iramba	56,073	12,116	990	144	1,405	1,831	7,339	432	1,497	1,230	1,570	13,796	98,424
Singida Rural	67,143	10,914	2,274	1,667	2,444	5,822	9,806	2,473	1,928	1,288	2,917	6,194	114,869
Manyoni	29,356	9,064	907	239	0	410	9,830	2,396	247	542	962	8,893	62,847
Singida Urban	10,271	1,596	211	572	117	635	1,226	210	423	169	506	1,620	17,557
Total	162,843	33,691	4,382	2,623	3,966	8,698	28,201	5,511	4,094	3,229	5,955	30,503	293,696

5.2 LAND USE: Area of Land by type of Land Use and District during 2002/03 Agricultural Year

District	Size of Holding (Ha)													Total
	Land Use													
	Area under Temporary Mono Crops	Area under Temporary Mixed Crops	Area under Permanent Mono Crops	Area under Permanent Mixed Crops	Area under Permanent / Annual Mix	Area under Pasture	Area under Fallow	Area under Natural Bush	Area under Planted Trees	Area Rented to Others	Area Unusable	Area of Uncultivated Usable Land		
Iramba	113,918	18,419	286	29	2,982	4,265	14,533	466	452	2,052	2,257	15,804	175,464	
Singida Rural	99,977	15,723	1,220	3,093	5,777	8,280	8,734	3,763	494	1,151	2,502	4,824	155,538	
Manyoni	50,153	13,247	490	153		5,168	13,834	9,758	100	2,021	6,022	15,350	116,296	
Singida Urban	9,922	1,603	30	212	24	1,045	798	314	163	120	465	1,156	15,852	
Total	273,971	48,992	2,026	3,488	8,782	18,758	37,900	14,301	1,209	5,344	11,246	37,134	463,150	
%	59	11	0	1	2	4	8	3	0	1	2	8	100	

5.3 Number of Households by type of Household and District During 2002/03 Agriculture Year

District	Was all Land Available to the Hh Used During 2002/03?				
	Yes		No		Total
	Number	Percent	Number	Percent	
Iramba	42,449	68	19,807	32	62,255
Singida Rural	50,629	69	22,326	31	72,954
Manyoni	15,093	46	17,972	54	33,065
Singida Urban	7,386	66	3,740	34	11,125
Total	115,556	64	63,844	36	179,400

5.4 Number of Agricultural Households by Whether they Consider themselves to have Sufficient Land for the Household and District, 2002/03 Agricultural Year

District	Do you Consider that you have sufficient land for the Hh?				
	Yes		No		Total
	Number	Percent	Number	Percent	Number
Iramba	35,016	56	27,240	44	62,255
Singida Rural	32,987	45	39,967	55	72,954
Manyoni	22,964	69	10,100	31	33,065
Singida Urban	3,652	33	7,473	67	11,125
Total	94,620	53	84,780	47	179,400

5.5 Number of Agricultural Households by whether Female Members of the Household Own or Have Customary Right to Land and District, 2002/03 Agricultural Year

District	Do any Female Members of the Hh own or have customary right				
	Yes		No		Total
	Number	Percent	Number	Percent	Number
Iramba	11,015	18	51,240	82	62,255
Singida Rural	17,194	24	55,760	76	72,954
Manyoni	6,982	21	26,083	79	33,065
Singida Urban	2,663	24	8,463	76	11,125
Total	37,854	21	141,546	79	179,400

COMMUNIAL RESOURCES

6.1 COMMUNAL RESOURCES: Average Distance (Km) from Agriculture Household to Communal Resources by Name of Communal Resource, Season and District, 2002/03 Agricultural Year

District	Communal Resource							
	Water for Humans		Water for Livestock		Communal Grazing		Communal Firewood	
	Distance to resource (km), Wet Season	Distance to resource (km), Dry Season	Distance to resource (km), Wet Season	Distance to resource (km), Dry Season	Distance to resource (km), Wet Season	Distance to resource (km), Dry Season	Distance to resource (km), Wet Season	Distance to resource (km), Dry Season
Iramba	0.8	1.5	1.3	2.2	2.2	3.0	2.3	3.1
Singida Rural	0.9	1.7	1.2	2.2	1.7	2.7	2.0	2.1
Manyoni	0.9	2.3	1.5	3.3	2.4	3.5	1.8	2.1
Singida Urban	0.8	1.0	1.2	1.5	1.8	2.7	2.5	2.5
Total	0.9	1.7	1.3	2.3	2.0	2.9	2.1	2.5

cont....COMMUNAL RESOURCES: Average Distance (Km) from Agriculture Household to Communal Resources by Name of Communal Resource, Season and District, 2002/03 Agricultural Year

District	Communal Resource									
	Wood for Charcoal		Building Poles		Forest for Bees (Honey)		Hunting (Animal)		Fishing (Fish)	
	Distance to resource (km), Wet Season	Distance to resource (km), Dry Season	Distance to resource (km), Wet Season	Distance to resource (km), Dry Season	Distance to resource (km), Wet Season	Distance to resource (km), Dry Season	Distance to resource (km), Wet Season	Distance to resource (km), Dry Season	Distance to resource (km), Wet Season	Distance to resource (km), Dry Season
Iramba	3.2	3.3	3.5	3.8	4.6	4.6	7.5	7.5	7.7	8.7
Singida Rural	2.6	2.6	3.4	3.6	4.7	4.6	7.8	7.8	7.3	8.1
Manyoni	3.3	3.3	3.4	3.6	7.2	7.3	8.1	8.1	7.7	8.7
Singida Urban	3.1	2.9	3.2	3.1	4.9	4.9	8.0	8.0	7.6	8.4
Total	3.0	3.0	3.5	3.6	5.1	5.1	7.8	7.8	7.5	8.5

6.2 COMMUNAL RESOURCES: Number of Agricultural Households with Access to Water for Humans by type of Utilization and District, 2002/03 Agricultural Year

District	Water for Humans		
	Home of Farm Consumption / Utilization	Not Used by Household	Total
Iramba	62,528	0	62,528
Singida Rural	73,079	118	73,197
Manyoni	32,656	409	33,065
Singida Urban	11,125	0	11,125
Total	179,389	526	179,915

6.3 COMMUNAL RESOURCES: Number of Agricultural Households with Access to Water for Livestock by type of Utilization and District, 2002/03 Agricultural Year

District	Water for Livestock				
	Home of Farm Consumption / Utilization	Sold to Neighbours	Not Used by Household	Not Available	Total
Iramba	41,163	144	16,427	4,794	62,528
Singida Rural	49,403	243	21,109	2,441	73,197
Manyoni	7,418	85	25,400	162	33,065
Singida Urban	5,983	0	4,974	168	11,125
Total	103,967	473	67,911	7,565	179,915

6.4: COMMUNAL RESOURCES: Number of Agricultural Households with Access to Communal Grazing by type of Utilization and District, 2002/03 Agricultural Year

District	Communal Grazing					
	Home of Farm Consumption / Utilization	Sold to Neighbours	Sold to Local Wholesale Market	Not Used by Household	Not Available	Total
Iramba	34,565	0	0	19,782	8,181	62,528
Singida Rural	39,989	118	122	20,757	12,211	73,197
Manyoni	6,074	0	0	22,421	4,570	33,065
Singida Urban	4,389	43	0	3,976	2,718	11,125
Total	85,018	161	122	66,936	27,679	179,915

6.5 COMMUNAL RESOURCES: Number of Agricultural Households with Access to Communal Firewood by type of Utilization and District, 2002/03 Agricultural Year

District	Communal Firewood							
	Home of Farm Consumption / Utilization	Sold to Neighbours	Sold to Village Market	Sold to Local Wholesale Market	Sold to Major Wholesale Market	Not Used by Household	Not Available	Total
Iramba	60,828	420	0	0	0	994	288	62,528
Singida Rural	65,766	3,034	248	1,584	0	1,964	601	73,197
Manyoni	31,317	370	74	0	0	1,303	0	33,065
Singida Urban	10,366	339	0	85	42	293	0	11,125
Total	168,276	4,163	322	1,669	42	4,554	889	179,915

6.6 COMMUNAL RESOURCES: Number of Agricultural Households with Access to Wood for Charcoal by type of Utilization and District, 2002/03 Agricultural Year

District	Wood for Charcoal								
	Home of Farm Consumption / Utilization	Sold to Neighbours	Sold to Traders on the Farm	Sold to Village Market	Sold to Local Wholesale Market	Sold to Major Wholesale Market	Not Used by Household	Not Available	Total
Iramba	11,228	2,813	280	0	276	289	20,136	27,506	62,528
Singida Rural	13,520	2,725	247	245	728	370	31,820	23,541	73,197
Manyoni	5,218	456	0	149	0	85	26,994	163	33,065
Singida Urban	1,259	635	42	0	0	419	6,754	2,016	11,125
Total	31,226	6,629	569	395	1,004	1,162	85,704	53,226	179,915

6.7 COMMUNAL RESOURCES: Number of Agricultural Households with Access to Building Poles by type of Utilization and District, 2002/03 Agricultural Year

District	Building Poles								
	Home of Farm Consumption / Utilization	Sold to Neighbours	Sold to Traders on the Farm	Sold to Village Market	Sold to Local Wholesale Market	Sold to Major Wholesale Market	Not Used by Household	Not Available	Total
Iramba	40,786	2,928	0	0	105	144	15,627	2,937	62,528
Singida Rural	47,169	2,048	0	369	1,698	0	13,146	8,766	73,197
Manyoni	26,962	238	139	0	0	0	5,323	402	33,065
Singida Urban	3,380	720	0	42	84	42	5,605	1,252	11,125
Total	118,297	5,935	139	411	1,888	187	39,701	13,357	179,915

6.8 COMMUNAL RESOURCES: Number of Agricultural Households with Access to Forest For Bees Products by type of Utilization and District, 2002/03 Agricultural Year

District	Forest for Bees Products								
	Home of Farm Consumption / Utilization	Sold to Neighbours	Sold to Traders on the Farm	Sold to Village Market	Sold to Local Wholesale Market	Sold to Major Wholesale Market	Not Used by Household	Not Available	Total
Iramba	2,450	1,587	144	0	0	0	5,562	52,785	62,528
Singida Rural	3,501	478	0	0	0	118	17,337	51,763	73,197
Manyoni	3,993	610	1,262	82	316	0	13,743	13,059	33,065
Singida Urban	33	209	83	0	0	0	159	10,642	11,125
Total	9,977	2,884	1,489	82	316	118	36,800	128,249	179,915

6.9 COMMUNAL RESOURCES: Number of Agricultural Households with Access to Hunting Grounds by type of Utilization and District, 2002/03 Agricultural Year

District	Hunting Grounds					
	Home of Farm Consumption / Utilization	Sold to Neighbours	Sold to Local Wholesale Market	Not Used by Household	Not Available	Total
Iramba	722	433	133	4,996	56,245	62,528
Singida Rural	120	0	0	2,302	70,774	73,197
Manyoni	82	0	0	2,408	30,575	33,065
Singida Urban	0	0	0	0	11,125	11,125
Total	924	433	133	9,706	168,719	179,915

6.10 COMMUNAL RESOURCES: Number of Agricultural Households with Access to Fishing Resources by type of Utilization and District, 2002/03 Agricultural Year

District	Fishing Resources							
	Home of Farm Consumption / Utilization	Sold to Neighbours	Sold to Village Market	Sold to Local Wholesale Market	Sold to Major Wholesale Market	Not Used by Household	Not Available	Total
Iramba	0	0	0	1,054	0	1,711	59,763	62,528
Singida Rural	483	123	3,594	374	125	4,899	63,600	73,197
Manyoni	84	0	0	0	0	1,169	31,812	33,065
Singida Urban	42	85	0	42	0	1,380	9,575	11,125
Total	609	208	3,594	1,470	125	9,159	164,750	179,915

**TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION
- LONG AND SHORT RAINY SEASON**

Table 7.1 and 7.2c TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Area Planted (ha) and Quantity Harvested by Season and Crop for the 2002/03 Agriculture Year, Singida Region

Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Cereal	1,816	352	194	243,745	89,117	366	245,560	89,468	364
Maize	1,795	340	190	135,482	54,056	399	137,277	54,396	396
Paddy	0	0	0	3,665	1,973	538	3,665	1,973	538
Sorghum	21	11	533	69,884	21,692	310	69,905	21,703	310
Bulrush Millet	0	0	0	30,783	10,025	326	30,783	10,025	326
Finger Millet	0	0	0	3,901	1,357	348	3,901	1,357	348
Wheat	0	0	0	29	14	494	29	14	494
Barley	0	0	0	0	0	0	0	0	0
Roots and Tubers	0	0	0	5,724	5,597	978	5,724	5,597	978
Cassava	0	0	0	2,995	2,424	809	2,995	2,424	809
Sweet Potatoes	0	0	0	2,564	2,807	1095	2,564	2,807	1095
Irish Potatoes	0	0	0	161	364	2253	161	364	2253
Yams	0	0	0	3	2	741	3	2	741
Cocoyam	0	0	0	0	0	0	0	0	0
Pulses	0	0	0	13,342	3,820	286	13,342	3,820	286
Mung Beans	0	0	0	2	9	4117	2	9	4117
Beans	0	0	0	8,328	1,645	198	8,328	1,645	198
Cowpeas	0	0	0	943	299	317	943	299	317
Green Gram	0	0	0	174	75	429	174	75	429
Pigeon Peas	0	0	0	0	0	0	0	0	0
Chich Peas	0	0	0	3,201	1,624	0	3,201	1,624	507
Bambaranuts	0	0	0	695	169	243	695	169	243
Field Peas	0	0	0	0	0	0	0	0	0
Oil Seeds and Oil nuts	279	335	1200	52,843	24,367	461	53,122	24,702	465
Sunflower	279	335	1200	40,590	21,002	517	40,869	21,337	522
Simsim	0	0	0	2,053	887	432	2,053	887	432
Groundnuts	0	0	0	10,146	2,462	243	10,146	2,462	243
Soya Beans	0	0	0	55	17	304	55	17	304
Castor Seed	0	0	0	0	0	0	0	0	0
Fruit and Vegetables	197	390	1982	1,249	1,406	1126	1,445	1,796	1243
Okra	0	0	0	20	8	398	20	8	398
Radish	0	0	0	0	0	0	0	0	0
Turmeric	0	0	0	0	0	0	0	0	0
Bitter Aubergine	0	0	0	16	14	884	16	14	884
Garlic	0	0	0	0	0	0	0	0	0
Onions	0	0	0	775	830	1072	775	830	1072
Ginger	0	0	0	0	0	0	0	0	0
Cabbage	0	0	0	50	169	3355	50	169	3355
Tomatoes	109	266	2437	215	268	1247	324	534	1648
Spinnach	15	12	823	19	19	962	34	31	902
Carrot	0	0	0	0	0	0	0	0	0
Chillies	0	0	0	4	5	1067	4	5	1067
Amaranths	0	0	0	36	60	1692	36	60	1692
Pumpkins	10	10	988	0	0	0	10	10	988
Cucumber	39	6	154	17	0	20	56	6	113
Egg Plant	24	96	3952	17	19	1112	42	115	2772
Water Mellon	0	0	0	0	0	0	0	0	0
Cauliflower	0	0	0	80	15	185	80	15	185
Cash Crops	0	0	0	2,226	1,370	615	2,226	1,370	615
Seaweed	0	0	0	0	0	0	0	0	0
Cotton	0	0	0	687	275	400	687	275	400
Tobacco	0	0	0	1,387	1,083	780	1,387	1,083	780
Pyrethrum	0	0	0	152	13	0	152	13	0
Jute	0	0	0	0	0	0	0	0	0
Total	2,292			319,128			321,419		

* The total area planted includes the sum of the planted area for both Long and Short Season and is an overestimation of the actual area due to being produced on the same land during the 2 seasons. Previous surveys have used the lino season to estimate physical land area under production to different crops

Table 7.1 and 7.2d TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Area Planted (ha) and Quantity Harvested by Season and Crop for the 2002/03 Agriculture Year, Singida Region

Crop	Short Rainy Season		Long Rainy Season		Total Area Planted Short and Long Rainy Season	% Area Planted in Short Rainy Season
	Number of Households	Area Planted (ha)	Number of Households	Area Planted (ha)		
Cereals	899	1,816	7,121	3,901	5,717	32
Maize	733	1,795	132,667	135,482	137,277	1
Paddy	0	0	7,173	3,665	3,665	0
Sorghum	166	21	82,809	69,884	69,905	0
Bulrush Millet	0	0	43,386	30,783	30,783	0
Finger Millet	0	0	7,121	3,901	3,901	0
Wheat	0	0	0	0	0	0
Barley	0	0	0	0	0	0
Root and Tubers	0	0	15,155	5,724	5,724	0
Cassava	0	0	6,610	2,995	2,995	0
Sweet Potatoes	0	0	8,432	2,564	2,564	0
Irish Potatoes	0	0	80	161	161	0
Yams	0	0	33	3	3	0
Cocoyam	0	0	0	0	0	0
Pulses	0	0	28,746	13,342	13,342	0
Mung Beans	0	0	43	2	2	0
Beans	0	0	19,913	8,328	8,328	0
Cowpeas	0	0	2,579	943	943	0
Green Gram	0	0	242	174	174	0
Chich Peas	0	0	2,297	3,201	3,201	0
Bambaranuts	0	0	3,673	695	695	0
Field Peas	0	0	0	0	0	0
Oil Seeds and Oil nuts	138	279	74,450	52,843	53,122	1
Sunflower	138	279	45,857	40,590	40,869	1
Simsim		0	2,765	2,053	2,053	0
Groundnuts	0	0	25,662	10,146	10,146	0
Soya Beans	0	0	167	55	55	0
Castor Seed	0	0	0	0	0	0
Fruit and Vegetables	1,080	197	5,168	1,249	1,445	14
Okra	0	0	126	20	20	0
Bitter Aubergine	0	0	84	16	16	0
Onions	0	0	1,928	775	775	0
Cabbage	0	0	321	50	50	0
Tomatoes	600	109	1,802	215	324	34
Spinnach	120	15	265	19	34	43
Carrot	0	0	0	0	0	0
Chillies	0	0	42	4	4	0
Amaranths	0	0	350	36	36	0
Pumpkins	120	10	0	0	10	100
Cucumber	120	39	85	17	56	69
Egg Plant	0	0	43	17	17	0
Water Mellon	0	0	0	0	0	0
Cauliflower	0	0	123	80	80	0
Cash Crops	0	0	1,867	2,226	2,226	0
Cotton	0	0	399	687	687	0
Tobacco	0	0	1,343	1,387	1,387	0
Pyrethrum	0	0	125	152	152	0
Total				79,284	81,576	

7.1 and 7.2e: TOTAL ANNUAL CROP AND VEGETABLE: Total Number of Agriculture Households and Planted Area (ha) By Means Used for Soil Preparation and District During 2002/03 Crop Year-SHORT RAINY SEASON

District	Soil Preparation							
	Mostly Tractor Ploughing		Mostly Oxen Ploughing		Mostly Hand Cultivation		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Iramba	138	2,009	51,714	118,470	10,970	12,193	62,822	132,672
Singida Rural	483	234	31,959	68,074	41,237	45,569	73,679	113,877
Manyoni	0	0	3,838	18,799	29,226	43,685	33,065	62,485
Singida Urban	85	43	1,369	2,215	9,671	8,686	11,125	10,943
Total	706	2,287	88,881	207,558	91,104	110,132	180,691	319,977
%	0.2	0.7	27.8	64.9	28.5	34.4	56.5	100.0

7.1 and 7.2f Total Annual Crop and Vegetable Production: Total Number of Agriculture Households and Planted Area by Fertilizer Use and District for the 2002/03 agriculture Year - Long and Short Rainy Season, Morogoro Region

District	Fertilizer Use								
	Mostly Farm Yard Manure		Mostly Compost		Mostly Inorganic		No Fertilizer Applied		Total
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Planted Area
Iramba	26,553	60,010	1,147	3,392	0	0	35,122	69,584	132,986
Singida Rural	25,695	42,261	2,043	2,161	0	0	45,940	69,908	114,330
Manyoni	3,460	6,546	169	171	1,422	3,595	28,014	52,847	63,160
Singida Urban	4,828	5,027	340	305	0	0	5,958	5,611	10,943
Total	60,536	113,845	3,699	6,029	1,422	3,595	115,034	197,951	321,419

7.1 ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Irrigation Use and District During 2002/03 Crop Year SHORT RAINY SEASON

District	Irrigation Use				
	Households Using Irrigation		Households Not Using Irrigation		Total
	Number of Household	Planted Area	Number of Household	Planted Area	Planted Area
Iramba	0	0	567	1,977	1,977
Singida Rural	600	197	125	101	298
Manyoni	0	0	0	0	0
Singida Urban	0	0	41	17	17
Total	600	197	733	2,095	2,292

7.2 ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Irrigation Use and District During 2002/03 Crop Year LONG RAINY SEASON

District	Irrigation Use				
	Households Using Irrigation		Households Not Using Irrigation		Total
	Number of Household	Planted Area	Number of Household	Planted Area	Planted Area
Iramba	1,559	2,867	60,696	128,142	131,009
Singida Rur	1,584	3,916	71,371	110,116	114,032
Manyoni	2,157	4,202	30,908	58,957	63,160
Singida Urb	775	1,113	10,309	9,814	10,927
Total	6,076	12,098	173,283	307,029	319,128

7.1 and 7.2h TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Insecticide Use and District During 2002/03 Crop Year in SHORT RAINY SEASON

District	Insecticide						% of Planted area using Insecticide
	Households Using Insecticide		Households Not Using Insecticide		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	4,702	11,306	58,120	121,680	62,822	132,986	8.50
Singida Rural	3,930	7,222	69,749	107,108	73,679	114,330	6.32
Manyoni	3,185	10,578	29,880	52,582	33,065	63,160	16.75
Singida Urban	512	515	10,613	10,428	11,125	10,943	4.71
Total	12,329	29,621	168,363	291,798	180,691	321,419	9.22

7.1 and 7.2i TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Herbicide Use and District During 2002/03 Crop Year SHORT RAINY SEASON

District	Herbicide Use						% of Planted area using Herbicide
	Households Using Herbicide		Households Not Using Herbicide		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	287	875	62,535	132,111	62,822	132,986	0.66
Singida Rural	1,343	1,839	72,336	112,491	73,679	114,330	1.61
Manyoni	210	434	32,855	62,726	33,065	63,160	0.69
Singida Urban	43	34	11,083	10,909	11,125	10,943	0.32
Total	1,882	3,182	178,809	318,237	180,691	321,419	0.99

7.1 and 7.2j ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Fungicide Use and District During 2002/03 Crop Year SHORT RAINY SEASON

District	Fungicide Use						% of Planted area using Fungicide
	Households Using Fungicide		Households Not Using Fungicide		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	564	1,551	62,258	131,435	62,822	132,986	1.17
Singida Rural	1,686	2,227	71,992	112,102	73,679	114,330	1.95
Manyoni	324	2,901	32,741	60,258	33,065	63,160	4.59
Singida Urban	85	112	11,040	10,832	11,125	10,943	1.02
Total	2,660	6,792	178,031	314,627	180,691	321,419	2.11

7.1 and 7.2k ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Improved Seed Use and District During 2002/03 Crop Year SHORT RAINY SEASON

District	Improved Seed Use						% of Planted area using Improved Seed
	Households Using Improved Seed		Households Not Using Improved Seed		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	11,020	27,905	51,802	104,767	62,822	132,672	21.03
Singida Rural	13,069	19,766	60,610	94,111	73,679	113,877	17.36
Manyoni	6,970	12,880	26,136	49,622	33,106	62,501	20.61
Singida Urban	2,846	2,556	9,571	10,663	12,417	13,218	19.33
Total	32,456	62,511	146,902	255,174	179,359	317,685	19.68

**ANNUAL CROP AND VEGETABLE PRODUCTION -
SHORT RAINY SEASON**

7.1a ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area (ha) By Means Used for Soil Preparation and District During 2002/03 Crop Year-SHORT RAINY SEASON

District	Soil Preparation							
	Mostly Tractor Ploughing		Mostly Oxen Ploughing		Mostly Hand Cultivation		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Iramba	0	.	429	1,363	138	614	567	1,977
Singida Rural	120	12	120	24	485	261	724	298
Singida Urban	0	.	41	17	0	.	41	17
Total	120	12	590	1,404	622	875	1,333	2,292
%	5	1	26	61	27	38	58	100

7.1b ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Fertilizer Use and District During 2002/03 Crop Year-SHORT RAINY SEASON

District	Fertilizer Use									
	Mostly Farm Yard Manure		Mostly Compost		Mostly Inorganic Fertilizer		No Fertilizer Applied		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Iramba	286	1,028	0	.	0	.	281	950	567	1,977
Singida Rural	245	150	0	.	0	.	480	148	724	298
Singida Urban	41	17	0	.	0	.	0	.	41	17
Total	572	1,194	0	.	0	.	761	1,098	1,333	2,292
%	43	52	0	.	0	.	57	48	100	100

Total hh are indicative as a household may use more than one type of land preparation method for different crops

7.1c ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Irrigation Use and District During 2002/03 Crop Year SHORT RAINY SEASON

District	Irrigation Use						% of Planted area using Irrigation Use
	Households Using Irrigation		Households Not Using Irrigation		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	0	0	567	1,977	567	1,977	0.00
Singida Rural	600	197	125	101	724	298	66.08
Singida Urban	0	0	41	17	41	17	0.00
Total	600	197	733	2,095	1,333	2,292	8.58

7.1d ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Insecticide Use and District During 2002/03 Crop Year in SHORT RAINY SEASON

District	Insecticide Use						% of Planted area using Insecticide
	Households Using Insecticide		Households Not Using Insecticide		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	0	0	567	1,977	567	1,977	0.00
Singida Rural	120	49	605	249	724	298	16.32
Singida Urban	0	0	41	17	41	17	0.00
Total	120	49	1,213	2,243	1,333	2,292	2.12
%	9.0	2	91.0	98	100.0	100	

7.1e ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Herbicide Use and District During 2002/03 Crop Year SHORT RAINY SEASON

District	Herbicide Use						% of Planted area using Herbicide
	Households Using Herbicide		Households Not Using Herbicide		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	0	0	567	1,977	567	1,977	0.00
Singida Rural	120	49	605	249	724	298	16.32
Singida Urban	0	0	41	17	41	17	0.00
Total	120	49	1,213	2,243	1,333	2,292	2.12
%	9.0	2	91.0	98	100.0	100	

7.1f ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Fungicide Use and District During 2002/03 Crop Year SHORT RAINY SEASON

District	Fungicide Use						% of Planted area using Fungicide
	Households Using Fungicide		Households Not Using Fungicide		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	0	0	567	1,977	567	1,977	0.00
Singida Rural	120	49	605	249	724	298	16.32
Singida Urban	0	0	41	17	41	17	0.00
Total	120	49	1,213	2,243	1,333	2,292	2.12
%	9.0	2	91.0	98	100.0	100	

7.1g ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Improved Seed Use and District During 2002/03 Crop Year - SHORT RAINY SEASON

District	Improved Seed Use						% of Planted area using Improved Seed
	Households Using Improved Seed		Households Not Using Improved Seed		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	0	0	567	1,977	567	1,977	0.00
Singida Rural	724	298	0	0	724	298	100.00
Singida Urban	0	0	41	17	41	17	0.00
Total	724	298	608	1,994	1,333	2,292	12.99
%	54.3	13	45.6	87	100.0	100	

**ANNUAL CROP AND VEGETABLE PRODUCTION-
LONG RAINY SEASON**

**7.2a ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area (ha)
By Means Used for Soil Preparation and District During 2002/03 Crop Year-LONG RAINY SEASON**

District	Soil Preparation							
	Mostly Tractor Ploughing		Mostly Oxen Ploughing		Mostly Hand Cultivation		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Iramba	138	2,009	51,285	117,107	10,832	11,579	62,255	130,695
Singida Rural	363	222	31,839	68,050	40,753	45,307	72,954	113,579
Manyoni	0	0	3,838	18,799	29,226	43,685	33,065	62,485
Singida Urban	85	43	1,328	2,198	9,671	8,686	11,084	10,927
Total	586	2,274	88,291	206,154	90,482	109,257	179,359	317,685
%	0.3	0.7	49.2	64.9	50.4	34.4	100.0	100.0

7.2b Number of Crop Growing Households and Planted Area By Fertilizer Use and District During 2002/03 Crop Year-LONG RAINY SEASON

District	Fertilizer Use									
	Mostly Farm Yard Manure		Mostly Compost		Mostly Inorganic Fertilizer		No Fertilizer Applied		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Iramba	26,267	58,982	1,147	3,392	0	.	34,841	68,634	62,255	131,009
Singida Rural	25,451	42,111	2,043	2,161	0	.	45,460	69,760	72,954	114,032
Manyoni	3,460	6,546	169	171	1,422	3,595	28,014	52,847	33,065	63,160
Singida Urban	4,786	5,011	340	305	0	.	5,958	5,611	11,084	10,927
Total	59,964	112,651	3,699	6,029	1,422	3,595	114,274	196,853	179,359	319,128

7.2c ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Irrigation Use and District During 2002/03 Crop Year LONG RAINY SEASON

District	Irrigation Use						% of Planted area using Irrigation Use
	Households Using Irrigation		Households Not Using Irrigation		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	1,559	2,867	60,696	128,142	62,255	131,009	2.2
Singida Rural	1,584	3,916	71,371	110,116	72,954	114,032	3.4
Manyoni	2,157	4,202	30,908	58,957	33,065	63,160	6.7
Singida Urban	775	1,113	10,309	9,814	11,084	10,927	10.2
Total	6,076	12,098	173,283	307,029	179,359	319,128	3.8
%	3.4	4	96.6	96	100.0	100	

7.2d ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Insecticide Use and District During 2002/03 Crop Year in LONG RAINY SEASON

District	Insecticide Use					
	Households Using Insecticide		Households Not Using Insecticide		Total	
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area
Iramba	4,702	11,306	57,553	119,703	62,255	131,009
Singida Rural	3,810	7,173	69,144	106,859	72,954	114,032
Manyoni	3,185	10,578	29,880	52,582	33,065	63,160
Singida Urban	512	515	10,572	10,411	11,084	10,927
Total	12,209	29,573	167,150	289,555	179,359	319,128

7.2e ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Herbicide Use and District During 2002/03 Crop Year LONG RAINY SEASON

District	Herbicide Use						% of Planted area using Herbicide Use
	Households Using Herbicide		Households Not Using Herbicide		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	287	875	61,968	130,134	62,255	131,009	0.67
Singida Rural	1,223	1,790	71,732	112,242	72,954	114,032	1.57
Manyoni	210	434	32,855	62,726	33,065	63,160	0.69
Singida Urban	43	34	11,042	10,892	11,084	10,927	0.32
Total	1,762	3,134	177,596	315,994	179,359	319,128	0.98
%	1	1	99	99	100	100	

7.2f: Number of Crop Producing Households Reporting Selling Agricultural Products During 2002/03 By District

District	Did the Hh Sell any Crops from the 2002/03 season?				Total Number of Households
	Number of Households that Sold		Number of Households that Did not Sell		
	Number	%	Number	%	
Iramba	24,877	39.8	37,652	60.2	62,528
Singida Rural	36,760	50.2	36,437	49.8	73,197
Manyoni	17,251	52.2	15,814	47.8	33,065
Singida Urban	2,833	25.5	8,292	74.5	11,125
Total	81,720	45.4	98,195	54.6	179,915

7.2g ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Fungicide Use and District During 2002/03 Crop Year LONG RAINY SEASON

District	Fungicide Use						% of Planted area using Fungicide Use
	Households Using Fungicide		Households Not Using Fungicide		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	564	1,551	61,691	129,458	62,255	131,009	1.2
Singida Rural	1,567	2,179	71,388	111,853	72,954	114,032	1.9
Manyoni	324	2,901	32,741	60,258	33,065	63,160	4.6
Singida Urban	85	112	10,999	10,815	11,084	10,927	1.0
Total	2,540	6,743	176,819	312,384	179,359	319,128	2.1
%	1	2	99	98	100	100	

7.2h ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Improved Seed Use and District During 2002/03 Crop Year - LONG RAINY SEASON

District	Improved Seed Use						% of Planted area using Fungicide Use
	Households Using Improved Seed		Households Not Using Improved Seed		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	11,020	27,905	51,235	102,790	62,255	130,695	21.4
Singida Rural	12,344	19,468	60,610	94,111	72,954	113,579	17.1
Manyoni	6,970	12,880	26,095	49,605	33,065	62,485	20.6
Singida Urban	2,121	2,258	8,963	8,669	11,084	10,927	20.7
Total	32,456	62,511	146,902	255,174	179,359	317,685	19.7
%	18	20	82	80	100	100	

District	Improved Seed Use						% of Planted area using Improved Seed
	Improved Seed		Improved Seed		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Iramba	0	0	567	1,977	567	1,977	0
Singida Rural	724	298	0	0	724	298	100
Singida Urban	0	0	41	17	41	17	0
Total	724	298	608	1,994	1,333	2,292	13
%	54.3	13	45.6	87	100	100	

Table 7.2.1 Number of Agricultural Households, Area Planted (ha) and Quantity of Maize Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Maize										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	567	1,698	278	0.2	50,638	59,062	17,170	0.3	60,761	17,448	0.3
Singida Rural	125	88	52	0.6	51,194	42,699	21,146	0.5	42,787	21,198	0.5
Manyoni	0	0	0	0.0	27,194	32,035	15,102	0.5	32,035	15,102	0.5
Singida Urban	41	8	10	1.2	3,641	1,686	639	0.4	1,694	649	0.4
Total	733	1,795	340	0.2	132,667	135,482	54,056	0.4	137,277	54,396	0.4

Table 7.2.2 Number of Agricultural Households, Area Planted (ha) and Quantity of Paddy Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Paddy										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	845	615	186	0.3	615	186	0.3
Singida Rural	0	0	0	0.0	2,055	1,140	1,128	1.0	1,140	1,128	1.0
Manyoni	0	0	0	0.0	4,104	1,873	589	0.3	1,873	589	0.3
Singida Urban	0	0	0	0.0	169	39	70	1.8	39	70	1.8
Total	0	0	0	0.0	7,173	3,665	1,973	0.5	3,665	1,973	0.5

Table 7.2.3 Number of Agricultural Households, Area Planted (ha) and Quantity of Sorghum Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Sorghum										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0	27,844	29,836	6,296	0.2	29,836	6,296	0.2
Singida Rural	125	13	6	0.5	39,387	29,315	12,474	0.4	29,328	12,480	0.4
Manyoni	0	0	0	0	11,096	8,589	2,233	0.3	8,589	2,233	0.3
Singida Urban	41	8	5	0.6	4,483	2,143	689	0.3	2,151	694	0.3
Total	166	21	11	0.0	82,809	69,884	21,692	0.3	69,905	21,703	0.3

**Table 7.2.4 Number of Agricultural Households, Area Planted (ha) and Quantity of Fingermillet Harvested (tons) by Season and District
2002/03 Agricultural Year**

District	Fingermillet										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	5,906	3,428	1,216	0.0	3,428	1,216	0.0
Manyoni	0	0	0	0.0	243	75	21	0.3	75	21	0.3
Singida Urban	0	0	0	0.0	972	399	120	0.0	399	120	0.0
Total	0	0	0	0.0	7,121	3,901	1,357	0.0	3,901	1,357	0.0

**Table 7.2.5 Number of Agricultural Households, Area Planted (ha) and Quantity of Bulrushmillets Harvested (tons) by Season and District;
2002/03 Agricultural Year**

District	Bulrushmillets										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	6,475	6,949	1,600	0.2	6,949	1,600	0.2
Singida Rural	0	0	0	0.0	26,832	16,562	6,438	0.0	16,562	6,438	0.0
Manyoni	0	0	0	0.0	1,871	2,116	376	0.0	2,116	376	0.0
Singida Urban	0	0	0	0.0	8,207	5,156	1,610	0.0	5,156	1,610	0.0
Total	0	0	0	0.0	43,386	30,783	10,025	0.0	30,783	10,025	0.0

**Table 7.2.6 Number of Agricultural Households, Area Planted (ha) and Quantity of Wheat Harvested (tons) by Season and District; 2002/0
Agricultural Year**

District	Wheat										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	0	0	0	0.0	0	0	0.0

Table 7.2.7 Number of Agricultural Households, Area Planted (ha) and Quantity of Barley Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Barley										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	0	0	0	0.0	0	0	0.0

Table 7.2.8 Number of Agricultural Households, Area Planted (ha) and Quantity of Cassava Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Cassava										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	3,116	842	1,100	1.3	842	1,100	1.3
Singida Rural	0	0	0	0.0	1,221	964	354	0.4	964	354	0.4
Manyoni	0	0	0	0.0	1,628	1,019	819	0.8	1,019	819	0.8
Singida Urban	0	0	0	0.0	646	171	151	0.9	171	151	0.9
Total	0	0	0	0.0	6,610	2,995	2,424	0.8	2,995	2,424	0.8

Table 7.2.9 Number of Agricultural Households, Area Planted (ha) and Quantity of Sweet potatoes Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Sweet potatoes										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	3,670	911	127	0.1	911	127	0.1
Singida Rural	0	0	0	0.0	2,300	755	1,845	2.4	755	1,845	2.4
Manyoni	0	0	0	0.0	1,848	726	681	0.9	726	681	0.9
Singida Urban	0	0	0	0.0	614	171	153	0.9	171	153	0.9
Total	0	0	0	0.0	8,432	2,564	2,807	1.1	2,564	2,807	1.1

Table 7.2.10 Number of Agricultural Households, Area Planted (ha) and Quantity of Irish potatoes Harvested (tons) by Season and District 2002/03 Agricultural Year

District	Irish potatoes										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	80	161	364	0.0	161	364	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	80	161	364	0.0	161	364	0.0

Table 7.2.11 Number of Agricultural Households, Area Planted (ha) and Quantity of Yams Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Yams										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	33	3	2	0.0	3	2	0.0
Total	0	0	0	0.0	33	3	2	0.7	3	2	0.7

Table 7.2.11 Number of Agricultural Households, Area Planted (ha) and Quantity of Cocoyams Harvested (tons) by Season and District 2002/03 Agricultural Year

District	Cocoyams										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	0	0	0	0.0	0	0	0.0

Table 7.2.12 Number of Agricultural Households, Area Planted (ha) and Quantity of Mungbeans Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Mungbeans										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	43	2	9	4.1	2	9	4.1
Total	0	0	0	0.0	43	2	9	4.1	2	9	4.1

Table 7.2.13 Number of Agricultural Households, Area Planted (ha) and Quantity of Beans Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Beans										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	10,124	4,209	469	0.1	4,209	469	0.1
Singida Rural	0	0	0	0.0	3,396	1,051	374	0.4	1,051	374	0.4
Manyoni	0	0	0	0.0	6,308	3,051	797	0.3	3,051	797	0.3
Singida Urban	0	0	0	0.0	85	17	5	0.3	17	5	0.3
Total	0	0	0	0.0	19,913	8,328	1,645	0.2	8,328	1,645	0.2

Table 7.2.14 Number of Agricultural Households, Area Planted (ha) and Quantity of Cowpeas Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Cowpeas										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	143	29	3	0.1	29	3	0.1
Singida Rural	0	0	0	0.0	860	237	63	0.3	237	63	0.3
Manyoni	0	0	0	0.0	1,468	653	230	0.4	653	230	0.4
Singida Urban	0	0	0	0.0	108	23	3	0.1	23	3	0.1
Total	0	0	0	0.0	2,579	943	299	0.3	943	299	0.3

**Table 7.2.15 Number of Agricultural Households, Area Planted (ha) and Quantity of Greengram Harvested (tons) by Season and District; 2002/0
Agricultural Year**

District	Greengram										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	242	174	75	0.4	174	75	0.4
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	242	174	75	0.4	174	75	0.4

**Table 7.2.16 Number of Agricultural Households, Area Planted (ha) and Quantity of Chick peas Harvested (tons) by Season and District; 2002/0
Agricultural Year**

District	Chick peas										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	980	1,112	604	0.5	1,112	604	0.5
Singida Rural	0	0	0	0.0	495	274	123	0.5	274	123	0.5
Manyoni	0	0	0	0.0	822	1,815	896	0.5	1,815	896	0.5
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	2,297	3,201	1,624	0.5	3,201	1,624	0.5

**Table 7.2.17 Number of Agricultural Households, Area Planted (ha) and Quantity of Bambaranuts Harvested (tons) by Season and District; 2002/0
Agricultural Year**

District	Bambaranuts										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	1,697	321	71	0.2	321	71	0.2
Singida Rural	0	0	0	0.0	124	13	7	0.6	13	7	0.6
Manyoni	0	0	0	0.0	1,767	335	88	0.3	335	88	0.3
Singida Urban	0	0	0	0.0	85	26	2	0.1	26	2	0.1
Total	0	0	0	0.0	3,673	695	169	0.2	695	169	0.2

Table 7.2.18 Number of Agricultural Households, Area Planted (ha) and Quantity of Fieldpeas Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Fieldpeas										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Household	Planted	Harvestec	(tons/ha)	Household	Planted	Harvested	(tons/ha)	Planted	Harvested	(tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	0	0	0	0.0	0	0	0.0

Table 7.2.19 Number of Agricultural Households, Area Planted (ha) and Quantity of Sunflower Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Sunflower										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Household	Planted	Harvestec	(tons/ha)	Household	Planted	Harvested	(tons/ha)	Planted	Harvested	(tons/ha)
Iramba	138	279	335	1.2	23,115	23,946	12,364	0.5	24,225	12,699	0.5
Singida Rural	0	0	0	0.0	20,120	15,130	7,968	0.5	15,130	7,968	0.5
Manyoni	0	0	0	0.0	1,361	609	262	0.4	609	262	0.4
Singida Urban	0	0	0	0.0	1,261	905	408	0.5	905	408	0.5
Total	138	279	335	1.2	45,857	40,590	21,002	0.5	40,869	21,337	0.5

Table 7.2.20 Number of Agricultural Households, Area Planted (ha) and Quantity of Simsim Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Simsim										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Household	Planted	Harvestec	(tons/ha)	Household	Planted	Harvested	(tons/ha)	Planted	Harvested	(tons/ha)
Iramba	0	0	0	0.0	143	116	26	0.2	116	26	0.2
Singida Rural	0	0	0	0.0	121	49	18	0.4	49	18	0.4
Manyoni	0	0	0	0.0	2,501	1,888	843	0.4	1,888	843	0.4
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	2,765	2,053	887	0.4	2,053	887	0.4

**Table 7.2.21 Number of Agricultural Households, Area Planted (ha) and Quantity of Groundnuts Harvested (tons) by Season and District; 2002/03
Agricultural Year**

District	Groundnuts												
	Short Rainy bseason				Long Rainy bSeason				Total				
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)	% of area	Area per g growig hh
Iramba	0	0	0	0.0	8,901	2,917	459	0.2	2,917	459	0.2	28.8	0.33
Singida Rural	0	0	0	0.0	2,549	1,332	355	0.3	1,332	355	0.3	13.1	0.52
Manyoni	0	0	0	0.0	14,211	5,897	1,648	0.3	5,897	1,648	0.3	58.1	0.41
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0	0.0	0.00
Total	0	0	0	0.0	25,662	10,146	2,462	0.2	10,146	2,462	0.2	100.0	0.40

Table 7.2.22 Number of Agricultural Households, Area Planted (ha) and Quantity of Castor oil Harvested (tons) by Season and District; 2002/03

District	Castor oil										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	0	0	0	0.0	0	0	0.0

**Table 7.2.23 Number of Agricultural Households, Area Planted (ha) and Quantity of Soya beans Harvested (tons) by Season and District; 2002/03
Agricultural Year**

District	Soya beans										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	124	50	15	0.3	50	15	0.3
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	43	4	2	0.4	4	2	0.4
Total	0	0	0	0.0	167	55	17	0.3	55	17	0.3

Table 7.2.24 Number of Agricultural Households, Area Planted (ha) and Quantity of Okra Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Okra										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Household	Planted	Harvestec	(tons/ha)	Household	Planted	Harvested	(tons/ha)	Planted	Harvested	(tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	126	20	8	0.4	20	8	0.4
Total	0	0	0	0.0	126	20	8	0.4	20	8	0.4

Table 7.2.25 Number of Agricultural Households, Area Planted (ha) and Quantity of Bitter Aubergine Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Bitter Aubergine										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	84	16	14	0.9	16	14	0.9
Total	0	0	0	0.0	84	16	14	0.9	16	14	0.9

Table 7.2.26 Number of Agricultural Households, Area Planted (ha) and Quantity of Onion Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Onion										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	247	100	214	2.1	100	214	2.1
Singida Rural	0	0	0	0.0	1,473	657	601	0.9	657	601	0.9
Manyoni	0	0	0	0.0	80	5	4	0.7	5	4	0.7
Singida Urban	0	0	0	0.0	127	12	12	1.0	12	12	1.0
Total	0	0	0	0.0	1,928	775	830	1.1	775	830	1.1

Table 7.2.27 Number of Agricultural Households, Area Planted (ha) and Quantity of Cabbage Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Cabbage										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	124	25	37	1.5	25	37	1.5
Manyoni	0	0	0	0.0	165	21	127	5.9	21	127	5.9
Singida Urban	0	0	0	0.0	33	4	5	1.3	4	5	1.3
Total	0	0	0	0.0	321	50	169	3.4	50	169	3.4

Table 7.2.28 Number of Agricultural Households, Area Planted (ha) and Quantity of Tomatoes Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Tomatoes										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	141	7	11	1.5	7	11	1.5
Singida Rural	600	109	266	2.4	841	108	102	0.9	218	368	1.7
Manyoni	0	0	0	0.0	237	17	39	2.4	17	39	2.4
Singida Urban	0	0	0	0.0	583	82	115	1.4	82	115	1.4
Total	600	109	266	2.4	1,802	215	268	1.2	324	534	1.6

Table 7.2.29 Number of Agricultural Households, Area Planted (ha) and Quantity of Spinnach Harvested (tons) by Season and District; 2002/0 Agricultural Year

District	Spinnach										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	141	7	6	0.8	7	6	0.8
Singida Rural	120	15	12	0.8	124	13	13	1.0	27	25	0.9
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	120	15	12	0.8	265	19	19	1.0	34	31	0.9

Table 7.2.30 Number of Agricultural Households, Area Planted (ha) and Quantity of Carrot Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Carrot										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	0	0	0	0.0	0	0	0.0

Table 7.2.31 Number of Agricultural Households, Area Planted (ha) and Quantity of Chillies Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Chillies										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	42	4	5	1.1	4	5	1.1
Total	0	0	0	0.0	42	4	5	1.1	4	5	1.1

Table 7.2.32 Number of Agricultural Households, Area Planted (ha) and Quantity of Amaranths Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Amaranths										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	158	9	4	0.4	9	4	0.4
Singida Urban	0	0	0	0.0	192	27	57	2.1	27	57	2.1
Total	0	0	0	0.0	350	36	60	1.7	36	60	1.7

Table 7.2.33 Number of Agricultural Households, Area Planted (ha) and Quantity of Pumpkins Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Pumpkins										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	120	10	10	1.0	0	0	0	0.0	10	10	1.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	120	10	10	1.0	0	0	0	0.0	10	10	1.0

Table 7.2.34 Number of Agricultural Households, Area Planted (ha) and Quantity of Cucumber Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Cucumber										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	120	39	6	0.2	0	0	0	0.0	39	6	0.2
Manyoni	0	0	0	0.0	85	17	0	0.0	17	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	120	39	6	0.2	85	17	0	0.0	56	6	0.1

Table 7.2.35 Number of Agricultural Households, Area Planted (ha) and Quantity of Eggplant Harvested (tons) by Season and District; 2002/0 Agricultural Year

District	Eggplant										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	120	24	96	4.0	0	0	0	0.0	24	96	4.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	43	17	19	1.1	17	19	1.1
Total	120	24	96	4.0	43	17	19	1.1	42	115	2.8

Table 7.2.36 Number of Agricultural Households, Area Planted (ha) and Quantity of Water Mellon Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Water Mellon										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	20	1	6	4.0	0	0	0	0.0	1	6	4.0

Table 7.2.37 Number of Agricultural Households, Area Planted (ha) and Quantity of Cauliflower Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Cauliflower										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	123	80	15	0.2	80	15	0.2
Manyoni	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	123	80	15	0.2	80	15	0.2

Table 7.2.38 Number of Agricultural Households, Area Planted (ha) and Quantity of Cotton Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Cotton										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	399	687	275	0.4	687	275	0.4
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	399	687	275	0.4	687	275	0.4

Table 7.2.39 Number of Agricultural Households, Area Planted (ha) and Quantity of Tobacco Harvested (tons) by Season and District; 2002/03 Agricultural Year

District	Tobacco										
	Short Rainy bseason				Long Rainy bSeason				Total		
	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Number of Household	Area Planted	Quantity Harvested	Yield (tons/ha)	Area Planted	Quantity Harvested	Yield (tons/ha)
Iramba	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Singida Rural	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Manyoni	0	0	0	0.0	1,343	1,387	1,083	0.8	1,387	1,083	0.8
Singida Urban	0	0	0	0.0	0	0	0	0.0	0	0	0.0
Total	0	0	0	0.0	1,343	1,387	1,083	0.8	1,387	1,083	0.8

PERMANENT CROPS

Table 7.3 Production of Permanent Crops by Crop type and Region - Singida Region

District/Crop		Planted Area (ha)	Area Harvested (ha)	Quantity Harvested (tons)	Yield (Kgs/ha)
Iramba	Star Fruit	70	58	86	1482
	Sugarcane	29	14	28	1976
	Banana	503	92	213	2309
	Mango	806	0	5	0
	Pawpaw	26	0	33	0
	Guava	14	0	13	0
	Lime/Lemon	0	0		0
	Total	1,449	164	378	2298
Singida Rural	Pigeon Pea	65	65	14	217
	Cashewnut		0	6	0
	Sugarcane	462	110	3,773	34236
	Banana	2,739	129	433	3363
	Mango	164	76	169	2218
	Pawpaw	21	35	20	575
	Orange	50	25		0
	Guava	439	215	166	773
	Lime/Lemon	1	0	12	0
Total	3,940	654	4,593	7024	
Manyoni	Sugarcane	18	9	1,393	161834
	Tamarin	7	0		0
	Banana	86	23	180	7758
	Mango	2,770	0	22	0
	Pawpaw	3	1	12	12844
	Guava	269	0		0
	Lime/Lemon	7	0		0
	Total	3,159	33	1,607	49001
Singida Urban	Pigeon Pea				0
	Star Fruit		0	10	0
	Cashewnut			1	0
	Sugarcane	33	11	63	5824
	Nutmeg			1	0
	Banana	45	14	46	3253
	Mango	43	0	58	0
	Pawpaw	22	9	7	841
	Orange			2	0
	Guava	545	6	28	4982
	Lime/Lemon	2	2	8	4129
	Bilimbi	4	4	10	2487
	Total	695	45	234	5174
	Total	Pigeon Pea	65	65	14
Star Fruit		70	58	95	1652
Cashewnut			0	7	0
Sugarcane		541	144	5,257	36522.005
Tamarin		7	0		0
Nutmeg				1	0
Banana		3,373	259	873	3375
Mango		3,784	76	254	3331
Pawpaw		72	44	72	1633
Orange		50	25	2	66
Guava		1,268	220	207	939
Lime/Lemon		10	2	20	10007
Bilimbi		4	4	10	2487
Total		9,242	896	6,812	7600

Cont....7.3 Production of Permanent Crops by Crop type and Region - Singida Region

Crop	Area Planted	%
Mango	3,784	40.9
Banana	3,373	36.5
Guava	1,268	13.7
Sugarcane	541	5.9
Pawpaw	72	0.8
Star Fruit	70	0.8
Pigeon Pea	65	0.7
Orange	50	0.5
Lime/Lemon	10	0.1
Tamarin	7	0.1
Bilimbi	4	0.0
Cashewnut	0	0.0
Nutmeg	0	0.0
Total	9,242	100.0

PERMANENT CROPS: Number of Households by Planted Area by Fertilizer Use by Crop by District

Crop Type	Mostly Farm Yard Manure	Mostly Compost	No Fertilizer Applied	Total
	Planted Area (ha)	Planted Area (ha)	Planted Area (ha)	Planted Area (ha)
Pigeon Pea	30	.	35	65
Star Fruit	.	.	70	70
Sugarcane	78	63	399	541
Tamarin	.	.	7	7
Banana	313	229	2,831	3,373
Mango	470	11	3,303	3,784
Pawpaw	23	0	49	72
Orange	50	.	.	50
Guava	75	.	1,194	1,268
Lime/Lemon	.	.	10	10
Bilimbi	.	.	4	4
Total	1,037	303	7,901	9,242

Cont.... Planted Area with Fertiliser by type Crop

Crop Type	Mostly Farm Yard Manure	Total	%
Pigeon Pea	30	65	46.0
Star Fruit	.	70	0.0
Sugarcane	78	541	14.5
Tamarin	.	7	0.0
Banana	313	3,373	9.3
Mango	470	3,784	12.4
Pawpaw	23	72	31.4
Orange	50	50	100.0
Guava	75	1,268	5.9
Lime/Lemon	.	10	0.0
Bilimbi	.	4	0.0
Total	1,037	9,242	11.2

Cont.... Planted Area with Fertiliser by type Crop

Crop Type	Mostly Compos	Total	%
	Planted Area (ha)	Planted Area (ha)	
Pigeon Pea	.	65	0.0
Star Fruit	.	70	0.0
Sugarcane	63	541	11.7
Tamarin	.	7	0.0
Banana	229	3,373	6.8
Mango	11	3,784	0.3
Pawpaw	0	72	0.2
Orange	.	50	0.0
Guava	.	1,268	0.0
Lime/Lemon	.	10	0.0
Bilimbi	.	4	0.0
Total	303	9,242	3.3

AGROPROCESSING

8.0a Number of Crops Growing Households reported to have Processed Farm Products by District 2002/03 Agricultural Year

	Households That Processed Crops		Households That Did Not Process Crops		Total	
	Number	%	Number	%	Number	%
Iramba	56,039	90	6,489	10	62,528	100
Singida Rural	70,259	96	2,937	4	73,197	100
Manyoni	31,583	96	1,481	4	33,065	100
Singida Urban	9,469	85	1,657	15	11,125	100
Total	167,351	93	12,564	7	179,915	100

8.0b Number of Crop Growing Households by Method of Processing and District; 2002/03 Agricultural Year

District	Method of Processing								Total
	On Farm by Hand	On Farm by Machine	By Neighbour Machine	By Co-operative Union	By Trader	On Large Scale Farm	Other	By Factory	
Iramba	2,904	143	49,732	0	2,693	0	0	568	56,039
Singida Rural	9,483	2,337	55,266	125	2,801	123	125	0	70,259
Manyoni	4,416	1,339	25,744	0	0	0	84	0	31,583
Singida Urban	210	649	7,611	0	923	0	75	0	9,469
Total	17,013	4,468	138,352	125	6,417	123	284	568	167,351

Table 8.1.1a AGROPROCESSING: Number of Crop Growing Households Processing Crops During 2002/03 agricultural Year by Location and Crop, Singida Region

District	Households That Processed Product		Households That Did Not Process Product		Total	
	Number	%	Number	%	Number	%
Iramba	56,039	90	6,489	10	62,528	100
Singida Rural	70,259	96	2,937	4	73,197	100
Manyoni	31,583	96	1,481	4	33,065	100
Singida Urban	9,469	85	1,657	15	11,125	100
Total	167,351	93	12,564	7	179,915	100

8.1.1b AGROPROCESSING: Number of Crop Growing Households Reporting Farm Products Produced During 2002/03 Agricultural Year by Use of Products and Crop, 2002/03

Crop	Product Use						Total
	Household / Human Consumption	Fuel for Cooking	Sale Only	Animal Consumption	Did Not Use	Other	
Maize	117,228	0	143	143	0	0	117,514
Paddy	5,030	0	0	0	84	0	5,115
Sorghum	71,084	0	0	0	251	65	71,401
Bulrush Millet	39,601	120	123	0	202	0	40,047
Finger Millet	444	0	0	0	0	0	444
Cassava	2,288	0	0	0	0	0	2,288
Sweet Potatoes	1,659	0	0	0	0	0	1,659
Beans	2,524	0	0	0	0	0	2,524
Cowpeas	228	0	0	0	0	0	228
Pigeon Peas	122	0	0	0	0	0	122
Chick Peas	305	0	0	0	0	0	305
Bambaranut	831	124	0	0	0	0	955
Sunflower	4,588	0	142	0	80	0	4,810
Simsim	227	0	0	0	0	0	227
Groundnut	16,876	124	284	0	0	0	17,283
Banana	144	0	0	0	0	0	144
Total	263,179	367	693	143	618	65	265,064

8.1.1c AGROPROCESSING: Number of Crop Growing Households Reporting Processing of Farm Products Produced During 2003/04 Agriculture Year By Location of Sale of Product and Crop

Crop		Where Sold								Total
		Neighbours	Local Market / Trade Store	Secondary Market	Marketing Co-operative	Farmers Association	Trader at Farm	Other	Did not Sell	
Total	Maize	2,098	518	0	258	165	115	282	114,079	117,514
	Paddy	189	0	169	0	0	291	0	4,465	5,115
	Sorghum	803	42	0	0	42	121	108	70,286	71,401
	Bulrush Millet	611	0	0	123	0	0	246	39,068	40,047
	Finger Millet	125	0	0	0	0	0	0	319	444
	Cassava	85	0	0	0	0	0	0	2,203	2,288
	Sweet Potatoes	0	0	0	0	0	0	0	1,659	1,659
	Beans	0	0	0	0	0	0	0	2,524	2,524
	Cowpeas	0	0	0	0	0	0	0	228	228
	Pigeon Peas	0	0	0	0	0	0	0	122	122
	Chick Peas	0	0	0	0	0	80	0	225	305
	Bambaranut	0	0	0	0	0	0	0	955	955
	Sunflower	421	285	0	143	0	80	0	3,881	4,810
	Simsim	0	0	0	0	0	0	0	227	227
	Groundnut	414	0	83	0	0	150	0	16,636	17,283
	Banana	144	0	0	0	0	0	0	0	144
	Total	4,889	845	252	523	207	836	636	256,877	265,064

8.1.1d AGRO PROCESSING: Number of Crop Growing Households By Main Product During 2002/03 Agriculture Year and District

District	Main Product					Total
	Flour / Mea	Grain	Oil	Juice	Other	
Iramba	53,784	574	843	0	838	56,039
Singida Rural	68,925	1,089	245	0	0	70,259
Manyoni	28,788	1,650	1,064	81	0	31,583
Singida Urban	9,309	160	0	0	0	9,469
Total	160,806	3,473	2,153	81	838	167,351

8.1.1e AGRO PROCESSING: Number of Crop Growing Households By Use of Primary Processed Product During 2002/03 Agriculture Year and District

District	Product Use					
	Household / Human Consumption	Fuel for Cooking	Sale Only	Animal Consumption	Did Not Use	Total
Iramba	55,611	0	285	143	0	56,039
Singida Rural	70,139	120	0	0	0	70,259
Manyoni	31,583	0	0	0	0	31,583
Singida Urban	9,427	0	0	0	42	9,469
Total	166,761	120	285	143	42	167,351

8.0f AGRO PROCESSING: Number of Crop Growing Households By Where Product Sold During 2002/03 Agriculture Year and District

District	Where Sold								
	Neighbours	Local Market / Trade Store	Secondary Market	Marketing Co-operative	Farmers Association	Trader at Farm	Other	Did not Sell	Total
Iramba	1,274	575	0	143	0	0	282	53,764	56,039
Singida Rural	859	0	0	115	123	0	0	69,164	70,259
Manyoni	506	85	169	0	0	168	0	30,656	31,583
Singida Urban	202	0	0	0	42	0	128	9,097	9,469
Total	2,842	660	169	258	165	168	410	162,680	167,351

8.0g AGRO PROCESSING: Number of Crop Growing Households By By-Product During 2002/03 Agriculture Year and District

District	By Product								
	Bran	Cake	Husk	Pulp	Oil	Shell	No by-product	Other	Total
Iramba	1,964	2,018	0	0	0	0	52,058	0	56,039
Singida Rural	368	123	1,080	123	123	0	68,318	125	70,259
Manyoni	1,097	634	2,435	0	84	0	27,333	0	31,583
Singida Urban	124	126	85	165	0	85	8,884	0	9,469
Total	3,553	2,900	3,600	288	207	85	156,593	125	167,351

STORAGE

9.0 CROP STORAGE: Number of Households Storing Crops By Estimated Storage Loss and Crop Type

Crop		Little or no Loss		Up to 1/4 Loss		Between 1/4 and 1/2 Loss		Over 1/2 Loss		Total	
		No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%
Iramba	Maize	34,537	79.6	3,204	7.4	5,124	11.8	533	1.2	43,397	100.0
	Paddy	143	100.0	0	0.0	0	0.0	0	0.0	143	100.0
	Sorghum & Millet	21,296	80.0	2,059	7.7	3,151	11.8	112	0.4	26,619	100.0
	Beans & Pulses	7,254	92.9	0	0.0	557	7.1	0	0.0	7,810	100.0
	Wheat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cotton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Groundnuts/Barbara Nuts	1,979	100.0	0	0.0	0	0.0	0	0.0	1,979	100.0
Total		65,209	81.6	5,262	6.6	8,832	11.0	645	0.8	79,949	100.0
Singida Rural	Maize	36,140	80.1	6,426	14.2	2,082	4.6	492	1.1	45,140	100.0
	Paddy	1,810	100.0	0	0.0	0	0.0	0	0.0	1,810	100.0
	Sorghum & Millet	46,769	91.3	3,941	7.7	363	0.7	125	0.2	51,198	100.0
	Beans & Pulses	1,587	92.7	125	7.3	0	0.0	0	0.0	1,712	100.0
	Wheat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	125	100.0	0	0.0	0	0.0	0	0.0	125	100.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cotton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Groundnuts/Barbara Nuts	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total		86,432	86.4	10,491	10.5	2,444	2.4	617	0.6	99,985	100.0
Manyoni	Maize	22,223	91.5	1,342	5.5	479	2.0	250	1.0	24,294	100.0
	Paddy	2,856	100.0	0	0.0	0	0.0	0	0.0	2,856	100.0
	Sorghum & Millet	8,952	93.3	416	4.3	230	2.4	0	0.0	9,598	100.0
	Beans & Pulses	5,769	94.7	83	1.4	240	3.9	0	0.0	6,092	100.0
	Wheat	85	100.0	0	0.0	0	0.0	0	0.0	85	100.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cotton	79	100.0	0	0.0	0	0.0	0	0.0	79	100.0
	Groundnuts/Barbara Nuts	4,648	100.0	0	0.0	0	0.0	0	0.0	4,648	100.0
Total		44,612	93.6	1,840	3.9	950	2.0	250	0.5	47,652	100.0
Singida Urban	Maize	2,403	95.0	85	3.3	43	1.7	0	0.0	2,530	100.0
	Paddy	85	100.0	0	0.0	0	0.0	0	0.0	85	100.0
	Sorghum & Millet	8,420	94.0	455	5.1	43	0.5	42	0.5	8,959	100.0
	Beans & Pulses	108	71.8	0	0.0	43	28.2	0	0.0	151	100.0
	Wheat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	42	100.0	0	0.0	0	0.0	0	0.0	42	100.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cotton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Groundnuts/Barbara Nuts	42	100.0	0	0.0	0	0.0	0	0.0	42	100.0
Total		11,100	94.0	539	4.6	128	1.1	42	0.4	11,809	100.0

9.0 CROP STORAGE: Number of Households Storing Crops By Estimated Storage Loss and Crop Type

		Little or no Loss		Up to 1/4 Loss		Between 1/4 and 1/2 Loss		Over 1/2 Loss		Total	
		No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%
Total	Maize	95,303	82.6	11,056	9.6	7,727	6.7	1,275	1.1	115,361	100.0
	Paddy	4,894	100.0	0	0.0	0	0.0	0	0.0	4,894	100.0
	Sorghum & Millet	85,438	88.7	6,870	7.1	3,787	3.9	279	0.3	96,374	100.0
	Beans & Pulses	14,719	93.4	207	1.3	839	5.3	0	0.0	15,765	100.0
	Wheat	85	100.0	0	0.0	0	0.0	0	0.0	85	100.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	167	100.0	0	0.0	0	0.0	0	0.0	167	100.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cotton	79	100.0	0	0.0	0	0.0	0	0.0	79	100.0
	Groundnuts/Ambara Nuts	6,669	100.0	0	0.0	0	0.0	0	0.0	6,669	100.0
	Total	207,354	86.6	18,133	7.6	12,354	5.2	1,555	0.6	239,395	100.0

9.0a CROP STORAGE: Number of Households Storing Crops By Main Purpose of Storage and Crop Type

Crop		Food for the Household		To Sell for Higher Price		Seeds for Planting		Other		Total	
		No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%
Iramba	Maize	43,112	99.3	0	0.0	285	0.7	0	0.0	43,397	100.0
	Paddy	143	100.0	0	0.0	0	0.0	0	0.0	143	100.0
	Sorghum & Millet	26,189	98.4	0	0.0	430	1.6	0	0.0	26,619	100.0
	Beans & Pulses	4,998	64.0	0	0.0	2,813	36.0	0	0.0	7,810	100.0
	Wheat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cottton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Groundnuts/ Bambara Nuts	986	49.8	0	0.0	994	50.2	0	0.0	1,979	100.0
	Total	75,428	94.3	0	0.0	4,521	5.7	0	0.0	79,949	100.0
Singida Rural	Maize	43,546	96.5	0	0.0	1,594	3.5	0	0.0	45,140	100.0
	Paddy	1,690	93.4	120	6.6	0	0.0	0	0.0	1,810	100.0
	Sorghum & Millet	49,364	96.4	607	1.2	1,227	2.4	0	0.0	51,198	100.0
	Beans & Pulses	971	56.7	0	0.0	741	43.3	0	0.0	1,712	100.0
	Wheat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	125	100.0	0	0.0	0	0.0	0	0.0	125	100.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cottton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Groundnuts/ Bambara Nuts	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	95,696	95.7	728	0.7	3,562	3.6	0	0.0	99,985	100.0
Manyoni	Maize	23,572	97.0	253	1.0	470	1.9	0	0.0	24,294	100.0
	Paddy	2,554	89.4	141	4.9	160	5.6	0	0.0	2,856	100.0
	Sorghum & Millet	9,371	97.6	84	0.9	143	1.5	0	0.0	9,598	100.0
	Beans & Pulses	4,121	67.6	234	3.8	1,737	28.5	0	0.0	6,092	100.0
	Wheat	85	100.0	0	0.0	0	0.0	0	0.0	85	100.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cottton	0	0.0	0	0.0	0	0.0	79	100.0	79	100.0
	Groundnuts/ Bambara Nuts	2,928	63.0	139	3.0	1,580	34.0	0	0.0	4,648	100.0
	Total	42,631	89.5	851	1.8	4,090	8.6	79	0.2	47,652	100.0

9.0a CROP STORAGE: Number of Households Storing Crops By Main Purpose of Storage and Crop Type

Crop		Food for the Household		To Sell for Higher Price		Seeds for Planting		Other		Total	
		No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%	No. of Households	%
Singida Urban	Maize	2,488	98.3	42	1.7	0	0.0	0	0.0	2,530	100.0
	Paddy	85	100.0	0	0.0	0	0.0	0	0.0	85	100.0
	Sorghum & Millet	8,876	99.1	83	0.9	0	0.0	0	0.0	8,959	100.0
	Beans & Pulses	85	56.4	0	0.0	66	43.6	0	0.0	151	100.0
	Wheat	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	42	100.0	0	0.0	0	0.0	0	0.0	42	100.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cotton	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Groundnuts/ Bambara Nuts	42	100.0	0	0.0	0	0.0	0	0.0	42	100.0
	Total	11,619	98.4	125	1.1	66	0.6	0	0.0	11,809	100.0
Total	Maize	112,718	97.7	295	0.3	2,349	2.0	0	0.0	115,361	100.0
	Paddy	4,473	91.4	261	5.3	160	3.3	0	0.0	4,894	100.0
	Sorghum & Millet	93,801	97.3	774	0.8	1,799	1.9	0	0.0	96,374	100.0
	Beans & Pulses	10,174	64.5	234	1.5	5,357	34.0	0	0.0	15,765	100.0
	Wheat	85	100.0	0	0.0	0	0.0	0	0.0	85	100.0
	Coffee	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cashewnut	167	100.0	0	0.0	0	0.0	0	0.0	167	100.0
	Tobacco	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cotton	0	0.0	0	0.0	0	0.0	79	100.0	79	100.0
	Groundnuts/ Bambara Nuts	3,956	59.3	139	2.1	2,574	38.6	0	0.0	6,669	100.0
	Total	225,374	94.1	1,704	0.7	12,239	5.1	79	0.0	239,395	100.0

9.0c CROP STORAGE: Number of Households Storing Crops By Type of Crop

Crop		Households Storing Crop		Crop		Total	
		No. of Households	%	No. of Households	%	No. of Households	%
Iramba	Maize	43,397	81.5	9,858	18.5	53,255	100.0
	Paddy	143	0.3	52,971	99.7	53,114	100.0
	Sorghum & Millet	26,619	50.1	26,496	49.9	53,114	100.0
	Beans & Pulses	7,810	14.7	45,304	85.3	53,114	100.0
	Wheat	0	0.0	53,114	100.0	53,114	100.0
	Coffee	0	0.0	53,114	100.0	53,114	100.0
	Cashewnut	0	0.0	53,114	100.0	53,114	100.0
	Tobacco	0	0.0	53,114	100.0	53,114	100.0
	Cottton	0	0.0	53,114	100.0	53,114	100.0
	Groundnuts/Bambara Nuts	1,979	3.7	51,135	96.3	53,114	100.0
	Total	79,949	15.0	451,336	85.0	531,284	100.0
Singida Rural	Maize	45,140	64.9	24,455	35.1	69,595	100.0
	Paddy	1,810	2.6	67,785	97.4	69,595	100.0
	Sorghum & Millet	51,198	73.6	18,397	26.4	69,595	100.0
	Beans & Pulses	1,712	2.5	67,883	97.5	69,595	100.0
	Wheat	0	0.0	69,595	100.0	69,595	100.0
	Coffee	0	0.0	69,595	100.0	69,595	100.0
	Cashewnut	125	0.2	69,470	99.8	69,595	100.0
	Tobacco	0	0.0	69,595	100.0	69,595	100.0
	Cottton	0	0.0	69,595	100.0	69,595	100.0
	Groundnuts/Bambara Nuts	0	0.0	69,595	100.0	69,595	100.0
	Total	99,985	14.4	595,964	85.6	695,950	100.0
Manyoni	Maize	24,294	80.1	6,053	19.9	30,347	100.0
	Paddy	2,856	9.4	27,492	90.6	30,347	100.0
	Sorghum & Millet	9,598	31.6	20,749	68.4	30,347	100.0
	Beans & Pulses	6,092	20.1	24,255	79.9	30,347	100.0
	Wheat	85	0.3	30,262	99.7	30,347	100.0
	Coffee	0	0.0	30,347	100.0	30,347	100.0
	Cashewnut	0	0.0	30,347	100.0	30,347	100.0
	Tobacco	0	0.0	30,347	100.0	30,347	100.0
	Cottton	79	0.3	30,268	99.7	30,347	100.0
	Groundnuts/Bambara Nuts	4,648	15.3	25,699	84.7	30,347	100.0
	Total	47,652	15.7	255,820	84.3	303,473	100.0

9.0c CROP STORAGE: Number of Households Storing Crops By Type of Crop

Crop		Households Storing Crop		Crop		Total	
		No. of Households	%	No. of Households	%	No. of Households	%
Singida Urban	Maize	2,530	26.1	7,148	73.9	9,678	100.0
	Paddy	85	0.9	9,593	99.1	9,678	100.0
	Sorghum & Millet	8,959	92.6	719	7.4	9,678	100.0
	Beans & Pulses	151	1.6	9,527	98.4	9,678	100.0
	Wheat	0	0.0	9,678	100.0	9,678	100.0
	Coffee	0	0.0	9,678	100.0	9,678	100.0
	Cashewnut	42	0.4	9,636	99.6	9,678	100.0
	Tobacco	0	0.0	9,678	100.0	9,678	100.0
	Cottton	0	0.0	9,678	100.0	9,678	100.0
	Groundnuts/Bambara Nuts	42	0.4	9,636	99.6	9,678	100.0
	Total	11,809	12.2	84,972	87.8	96,781	100.0
Total	Maize	115,361	70.8	47,515	29.2	162,876	100.0
	Paddy	4,894	3.0	157,841	97.0	162,735	100.0
	Sorghum & Millet	96,374	59.2	66,361	40.8	162,735	100.0
	Beans & Pulses	15,765	9.7	146,969	90.3	162,735	100.0
	Wheat	85	0.1	162,650	99.9	162,735	100.0
	Coffee	0	0.0	162,735	100.0	162,735	100.0
	Cashewnut	167	0.1	162,567	99.9	162,735	100.0
	Tobacco	0	0.0	162,735	100.0	162,735	100.0
	Cottton	79	0.0	162,655	100.0	162,735	100.0
	Groundnuts/Bambara Nuts	6,669	4.1	156,065	95.9	162,735	100.0
	Total	239,395	14.7	1,388,092	85.3	1,627,487	100.0

9.1 CROP STORAGE: Number of Households and Current Quantity Stored (tons) by Crop Type and District

District/Crop Type		Number of Households	Quantity stored (tons)
Iramba	Maize	43,397	1,323
	Paddy	143	0
	Sorghum & Millet	26,619	535
	Beans & Pulses	7,810	11
	Groundnuts/Bambara Nuts	1,979	25
	Total	79,949	1,895
Singida Rural	Maize	45,140	4,275
	Paddy	1,810	261
	Sorghum & Millet	51,198	3,965
	Beans & Pulses	1,712	34
	Cashewnut	125	0
	Total	99,985	8,535
Manyoni	Maize	24,294	2,762
	Paddy	2,856	126
	Sorghum & Millet	9,598	804
	Beans & Pulses	6,092	186
	Wheat	85	0
	Cotton	79	2
	Groundnuts/Bambara Nuts	4,648	94
	Total	47,652	3,974
Singida Urban	Maize	2,530	6
	Paddy	85	0
	Sorghum & Millet	8,959	109
	Beans & Pulses	151	0
	Cashewnut	42	0
	Groundnuts/Bambara Nuts	42	0
	Total	11,809	115
Total	Maize	115,361	8,366
	Paddy	4,894	387
	Sorghum & Millet	96,374	5,413
	Beans & Pulses	15,765	230
	Wheat	85	0
	Cashewnut	167	0
	Cotton	79	2
	Groundnuts/Bambara Nuts	6,669	119
	Total	239,395	14,518

9.2 CROP STORAGE: Number of Households that Stored Crops By Length of Storage and Crop Type

Crop		Less than 3 Months	Between 3 and 6 Months	Over 6 Months	Total
Iramba	Maize	13,364	21,648	8,386	43,397
	Paddy	143	0	0	143
	Sorghum & Millet	9,019	13,228	4,372	26,619
	Beans & Pulses	2,835	4,403	572	7,810
	Groundnuts/B ambara Nuts	420	1,559	0	1,979
	Total	25,781	40,838	13,330	79,949
Singida Rural	Maize	19,148	19,080	6,912	45,140
	Paddy	122	368	1,321	1,810
	Sorghum & Millet	20,790	21,663	8,745	51,198
	Beans & Pulses	491	610	611	1,712
	Cashewnut	125	0	0	125
	Total	40,676	41,721	17,589	99,985
Manyoni	Maize	6,424	11,664	6,205	24,294
	Paddy	1,168	1,226	462	2,856
	Sorghum & Millet	4,424	3,877	1,297	9,598
	Beans & Pulses	959	3,283	1,851	6,092
	Wheat	85	0	0	85
	Cotton	0	0	79	79
	Groundnuts/B ambara Nuts	1,129	2,106	1,413	4,648
	Total	14,188	22,156	11,308	47,652
	Singida Urban	Maize	1,481	964	85
Paddy		0	85	0	85
Sorghum & Millet		3,893	4,273	793	8,959
Beans & Pulses		43	33	75	151
Cashewnut		42	0	0	42
Groundnuts/B ambara Nuts		0	0	42	42
Total		5,458	5,355	995	11,809
Total	Maize	40,417	53,356	21,588	115,361
	Paddy	1,433	1,679	1,782	4,894
	Sorghum & Millet	38,125	43,041	15,207	96,374
	Beans & Pulses	4,328	8,329	3,109	15,765
	Wheat	85	0	0	85
	Cashewnut	167	0	0	167
	Cotton	0	0	79	79
	Groundnuts/B ambara Nuts	1,549	3,665	1,456	6,669
	Total	86,104	110,070	43,221	239,395

9.3 CROP STORAGE: Number of Households Storing Crops By Method of Storage and District

District	Method of Storage							Total
	In Locally Made Traditional Structure	In Improved Locally Made Structure	In Modern Store	In Sacks / Open Drum	In Airtight Drum	Unprotected Pile	Other	
Iramba	36,688	255	0	15,885	0	0	284	53,113
Singida Rural	50,339	498	123	18,019	123	0	245	69,347
Manyoni	14,642	81	170	14,959	0	85	326	30,263
Singida Urban	3,350	338	0	5,491	414	0	85	9,678
Total	105,019	1,172	293	54,354	537	85	940	162,401

9.2 CROP STORAGE: Number of Households Storing

District	Normal Duration of Storage			Total
	Less than 3 Months	Between 3 and 6 Months	Over 6 Months	
Iramba	16,833	27,120	9,160	53,113
Singida Rural	30,076	28,738	10,534	69,347
Manyoni	9,602	13,883	6,778	30,263
Singida Urban	4,499	4,504	676	9,678
Total	61,009	74,245	27,147	162,401

9.2 CROP STORAGE: Number of Households Storing Crops By Main

District	Main Purpose				Total
	Food for the Household	To Sell for Higher Price	Seeds for Planting	Other	
Iramba	52,400	0	712	0	53,113
Singida Rural	67,264	122	1,962	0	69,347
Manyoni	29,144	337	782	0	30,263
Singida Urban	9,553	125	0	0	9,678
Total	158,362	583	3,456	0	162,401

9.2 CROP STORAGE: Number of Households Storing Crops By

District	Estimate Storage Loss				Total
	Little or no Loss	Up to 1/4 Loss	Between 1/4 and 1/2 Loss	Over 1/2 Loss	
Iramba	43,004	3,882	5,694	533	53,113
Singida Rural	59,629	7,027	2,199	492	69,347
Manyoni	28,109	1,425	479	250	30,263
Singida Urban	9,096	497	85	0	9,678
Total	139,838	12,830	8,457	1,275	162,401

MARKETING

10.1 Number of Crop Producing Households Reporting Selling Agricultural Products During 2002/03 By District

	Households that Sold		Households that Did not Sell		Total Number of Households	
	Number	%	Number	%	Number	%
Iramba	24,877	39.8	37,652	60.2	62,528	100.0
Singida Rural	36,760	50.2	36,437	49.8	73,197	100.0
Manyoni	17,251	52.2	15,814	47.8	33,065	100.0
Singida Urban	2,833	25.5	8,292	74.5	11,125	100.0
Total	81,720	45.4	98,195	54.6	179,915	100.0

10.2: Number of Households who Reported Main Reason for Not Selling Their Crops by District during 2002/03 Agricultural Year

District	Main Reasons for Not Selling Crops									
	Price Too Low	Production Insufficient to Sell	Market Too Far	Farmers Association Problems	Co-operative Problems	Trade Union Problems	Government Regulatory Board Problems	Other	Not applicable	Total
Iramba	137	35,741	0	0	138	287	0	1,136	25,090	62,528
Singida Rural	855	40,008	250	124	125	123	125	372	30,492	72,472
Manyoni	82	17,467	0	0	0	0	0	150	14,875	32,575
Singida Urban	170	7,938	42	0	0	43	0	439	2,409	11,041
Total	1,243	101,154	292	124	263	452	125	2,097	72,866	178,616

10.3 Proportion of Household who Reported Main Reason for Not Selling Their Crops by District during 2002/03 Agricultural Year

District	Price Too Low	Production Insufficient to Sell	Market Too Far	Farmers Association Problems	Co-operative Problems	Trade Union Problems	Government Regulatory Board Problems	Other	Not applicable	Total
Iramba	0.22	57.16	0.00	0.00	0.22	0.46	0.00	1.82	40.13	100.00
Singida Rural	1.18	55.20	0.35	0.17	0.17	0.17	0.17	0.51	42.07	100.00
Manyoni	0.25	53.62	0.00	0.00	0.00	0.00	0.00	0.46	45.66	100.00
Singida Urban	1.54	71.90	0.38	0.00	0.00	0.39	0.00	3.97	21.82	100.00
Total	0.70	56.63	0.16	0.07	0.15	0.25	0.07	1.17	40.79	100.00

IRRIGATION

11.1. Number and Percent of Crop Growing Households Reporting of Practicing Irrigation During 2002/03 Agriculture Year By District

District	Households Practicing Irrigation		Households not Practicing Irrigation		Total
	Number of Household	%	Number of Household	%	Number of Household
Iramba	426	0.7	62,102	99.3	62,528
Singida Rural	1,338	1.8	71,859	98.2	73,197
Manyoni	3,682	11.1	29,383	88.9	33,065
Singida Urban	933	8.4	10,192	91.6	11,125
Total	6,380	3.5	173,536	96.5	179,915

11.2 IRRIGATION: Area of Irrigated and Non Irrigatable (ha) Land By District

District	Irrigated Area (ha)	Irrigated Land (ha)	%
Iramba	230	46	20
Singida Rural	942	520	55
Manyoni	2,244	1,285	57
Singida Urban	167	167	100
Total	3,583	2,017	56

11.3: IRRIGATION: Number of Households Using Irrigation By Source of Irrigation Water During 2003/04 Agricultural Year By District

District	Source of Irrigation Water				Total
	River	Dam	Well	Canal	
Iramba	141	143	143	0	426
Singida Rural	0	370	720	249	1,338
Manyoni	76	0	322	3,283	3,682
Singida Urban	43	42	680	169	933
Total	259	555	1,865	3,701	6,380
%	4	9	29	58	100

11.4: IRRIGATION: Number of Households Using Irrigation By Method of Irrigation of Obtaining Water By District

District	Method of Obtaining Water			Total
	Gravity	Hand Bucket	Motor Pump	
Iramba	0	283	143	426
Singida Rural	491	847	0	1,338
Manyoni	3,359	322	0	3,682
Singida Urban	127	806	0	933
Total	3,977	2,259	143	6,380
%	62	35	2	100

11.5: IRRIGATION: Number of Households Using Irrigation By Method of Irrigation Application By District

District	Method of Application		Total
	Flood	Bucket / Watering Can	
Iramba	0	426	426
Singida Rural	1,091	247	1,338
Manyoni	3,359	322	3,682
Singida Urban	85	849	933
Total	4,534	1,845	6,380
%	71	29	100

11.6: IRRIGATION: Number of Households With Erosion Control/Water Harvesting Facilities on their Land By District

District	Does the Household Have Any Erosion Control/Water				
	Have facility		Does Not Have Facility		Total
	Number	%	Number	%	Number
Iramba	6,294	10	56,234	90	62,528
Singida Rural	8,080	11	65,117	89	73,197
Manyoni	488	1	32,577	99	33,065
Singida Urban	667	6	10,458	94	11,125
Total	15,529	9	164,386	91	179,915

11.7 EROSION CONTROL: Number of Erosion Control Harvesting Structures By Type and District

District	Type of Erosion Control								Total
	Terraces	Erosion Control Bunds	Gabions / Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds	Drainage Ditches	Dam	
Iramba	0	53,203	0	3,088	21,226	3,857	562	0	81,937
Singida Rural	8,497	46,270	.	862	736	26,956	3,685	.	87,004
Manyoni	792	7,898	.	.	.	820	.	.	9,510
Singida Urban	.	4,904	.	.	.	406	254	.	5,564
Total	9,289	112,275	0	3,950	21,962	32,039	4,500	0	184,015

ACCESS TO FARM INPUTS/ IMPLEMENTS

12.1.1 ACCESS TO INPUTS: Number of Agricultural Households Using Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Number of Agricultural		Number of Agricultural		Total	
	Number	%	Number	%	Number	%
Iramba	287	0	62,242	100	62,528	100
Singida Rural	123	0	73,074	100	73,197	100
Manyoni	2,208	7	30,857	93	33,065	100
Singida Urban	41	0	11,125	100	11,167	100
Total	2,659	1	177,298	99	179,957	100

12.1.2 ACCESS TO INPUTS: Number of Agricultural Households Using Farm Yard Manure by District, 2002/03 Agricultural Year

District	Number of Agricultural		Number of Agricultural		Total	
	Number	%	Number	%	Number	%
Iramba	36,163	58	26,365	42	62,528	100
Singida Rural	34,198	47	39,124	53	73,322	100
Manyoni	6,641	20	26,424	80	33,065	100
Singida Urban	6,257	56	4,827	44	11,084	100
Total	83,259	46	96,740	54	179,999	100

12.1.3 ACCESS TO INPUTS: Number of Agricultural Households Using COMPOST Manure by District, 2002/03 Agricultural Year

District	Number of Agricultural		Number of Agricultural		Total	
	Number	%	Number	%	Number	%
Iramba	2,845	5	59,683	95	62,528	100
Singida Rural	3,471	5	69,726	95	73,197	100
Manyoni	660	2	32,404	98	33,065	100
Singida Urban	810	7	10,316	93	11,125	100
Total	7,786	4	172,129	96	179,915	100

12.1.4 ACCESS TO INPUTS: Number of Agricultural Households Using Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Number of Agricultural		Number of Agricultural		Total	
	Number	%	Number	%	Number	%
Iramba	3,155	5	59,373	95	62,528	100
Singida Rural	958	1	72,239	99	73,197	100
Manyoni	2,372	7	30,693	93	33,065	100
Singida Urban	427	4	10,699	96	11,125	100
Total	6,912	4	173,003	96	179,915	100

12.1.5 ACCESS TO INPUTS: Number of Agricultural Households Using Herbicides by District, 2002/03 Agricultural Year

District	Number of Agricultural		Number of Agricultural		Total	
	Number	%	Number	%	Number	%
Iramba	0	0	62,528	100	62,528	100
Singida Rural	117	0	73,080	100	73,197	100
Manyoni	0	0	33,065	100	33,065	100
Singida Urban	0	0	11,125	100	11,125	100
Total	117	0	179,799	100	179,915	100

12.1.6 ACCESS TO INPUTS: Number of Agricultural Households using Improved Seeds by District, 2002/03 Agricultural Year

District	Number of Agricultural Households Using Improved Seeds		Number of Agricultural Households NOT Using Improved Seeds		Total	
	Number	%	Number	%	Number	%
Iramba	5,295	8	57,233	92	62,528	100
Singida Rural	8,740	12	64,332	88	73,072	100
Manyoni	10,901	33	22,164	67	33,065	100
Singida Urban	1,479	13	9,647	87	11,125	100
Total	26,415	15	153,375	85	179,790	100

12.1.7 ACCESS TO INPUTS: Number of Agricultural Households and Source of Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Co-operative		Local Market / Trade Store		Neighbour		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	0	0	287	0	0	0	62,242	100	62,528	100
Singida Rural	0	0	123	0	0	0	73,074	100	73,197	100
Manyoni	1,421	4	74	0	712	2	30,857	93	33,065	100
Singida Urban	0	0	0	0	41	0	11,125	100	11,167	100
Total	1,421	1	484	0	754	0	177,298	99	179,957	100

12.1.8 ACCESS TO INPUTS: Number of Agricultural Households and Source of Farm Yard Manure by District, 2002/03 Agricultural Year

District	Co-operative		Local Farmers Group		Local Market / Trade Store		Secondary Market		Development Project		Crop Buyers	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	704	1	144	0	133	0	0	0	0	0	577	1
Singida Rural	0	0	0	0	0	0	370	1	122	0	0	0
Manyoni	0	0	0	0	0	0	0	0	0	0	0	0
Singida Urban	0	0	0	0	0	0	0	0	0	0	0	0
Total	704	0	144	0	133	0	370	0	122	0	577	0

cont.... ACCESS TO INPUTS: Number of Agricultural Households and Source of Farm Yard Manure by District, 2002/03 Agricultural Year

District	Large Scale Farm		Locally Produced by Household		Neighbour		Other		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	1,438	2	20,457	33	12,423	20	287	0	26,365	42	62,528	100
Singida Rural	0	0	28,669	39	5,036	7	0	0	39,124	53	73,322	100
Manyoni	0	0	2,810	8	3,831	12	0	0	26,424	80	33,065	100
Singida Urban	0	0	4,642	42	1,615	15	0	0	4,827	44	11,084	100
Total	1,438	1	56,578	31	22,905	13	287	0	96,740	54	179,999	100

12.1.9 ACCESS TO INPUTS: Number of Agricultural Households and Source of COMPOST Manure by District, 2002/03 Agricultural Year

District	Co-operative		Local Farmers Group		Local Market / Trade Store		Large Scale Farm		Locally Produced by Household	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	133	0	0	0	0	0	144	0	2,425	4
Singida Rural	642	1	103	0	207	0	0	0	2,396	3
Manyoni	0	0	0	0	0	0	79	0	581	2
Singida Urban	0	0	0	0	0	0	43	0	767	7
Total	775	0	103	0	207	0	266	0	6,170	3

cont... ACCESS TO INPUTS: Number of Agricultural Households and Source of COMPOST Manure by District, 2002/03 Agricultural Year

District	Neighbour		Not applicable		Total	
	Number	%	Number	%	Number	%
Iramba	143	0	59,683	95	62,528	100
Singida Rural	122	0	69,726	95	73,197	100
Manyoni	0	0	32,404	98	33,065	100
Singida Urban	0	0	10,316	93	11,125	100
Total	265	0	172,129	96	179,915	100

12.1.10 ACCESS TO INPUTS: Number of Agricultural Households and Source of Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Co-operative		Local Farmers Group		Local Market / Trade Store		Secondary Market		Development Project	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	0	0	124	0	1,498	2	143	0	0	0
Singida Rural	0	0	0	0	958	1	0	0	0	0
Manyoni	1,278	4	0	0	787	2	0	0	65	0
Singida Urban	0	0	0	0	427	4	0	0	0	0
Total	1,278	1	124	0	3,670	2	143	0	65	0

cont... ACCESS TO INPUTS: Number of Agricultural Households and Source of Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Crop Buyers		Neighbour		Other		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	0	0	684	1	706	1	59,373	95	62,528	100
Singida Rural	0	0	0	0	0	0	72,239	99	73,197	100
Manyoni	82	0	160	0	0	0	30,693	93	33,065	100
Singida Urban	0	0	0	0	0	0	10,699	96	11,125	100
Total	82	0	844	0	706	0	173,003	96	179,915	100

12.1.11 ACCESS TO INPUTS: Number of Agricultural Households and Source of Herbicides by District, 2002/03 Agricultural Year

District	Neighbour		Not applicable		Total	
	Number	%	Number	%	Number	%
Iramba	0	0	62,528	100	62,528	100
Singida Rural	117	0	73,080	100	73,197	100
Manyoni	0	0	33,065	100	33,065	100
Singida Urban	0	0	11,125	100	11,125	100
Total	117	0	179,799	100	179,915	100

12.1.12 ACCESS TO INPUTS: Number of Agricultural Households Source of Improved Seeds by District, 2002/03 Agricultural Year

District	Co-operative		Local Farmers Group		Local Market / Trade Store		Secondary Market		Development Project		Crop Buyers	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	143	0	0	0	3,736	6	143	0	0	0	0	0
Singida Rural	0	0	0	0	4,593	6	125	0	125	0	0	0
Manyoni	798	2	0	0	5,397	16	0	0	477	1	419	1
Singida Urban	0	0	33	0	1,063	10	0	0	0	0	0	0
Total	941	1	33	0	14,790	8	268	0	602	0	419	0

cont... ACCESS TO INPUTS: Number of Agricultural Households Source of Improved Seeds by District, 2002/03 Agricultural Year

District	Large Scale Farm		Locally Produced by Household		Neighbour		Other		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	0	0	143	0	1,131	2	0	0	57,233	92	62,528	100
Singida Rural	248	0	2,178	3	1,471	2	0	0	64,332	88	73,072	100
Manyoni	0	0	83	0	3,561	11	165	0	22,164	67	33,065	100
Singida Urban	0	0	255	2	128	1	0	0	9,647	87	11,125	100
Total	248	0	2,658	1	6,291	3	165	0	153,375	85	179,790	100

12.1.13 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	0	0	143	50	143	50	0	0	0	0	287	100
Singida Rural	0	0	0	0	0	0	123	100	0	0	123	100
Manyoni	1,899	86	82	4	0	0	145	7	82	4	2,208	100
Singida Urban	41	100	0	0	0	0	0	0	0	0	41	100
Total	1,940	73	225	8	143	5	268	10	82	3	2,659	100

12.1.14 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Farm Yard Manure by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	31,603	87	4,292	12	124	0	144	0	36,163	100
Singida Rural	32,477	95	1,104	3	0	0	618	2	34,198	100
Manyoni	5,594	84	804	12	243	4	0	0	6,641	100
Singida Urban	6,090	97	167	3	0	0	0	0	6,257	100
Total	75,763	91	6,367	8	367	0	762	1	83,259	100

12.1.15 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of COMPOST Manure by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 10 and 20 km		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	2,559	90	287	10	0	0	2,845	100
Singida Rural	2,997	86	228	7	245	7	3,471	100
Manyoni	660	100	0	0	0	0	660	100
Singida Urban	810	100	0	0	0	0	810	100
Total	7,026	90	515	7	245	3	7,786	100

12.1.16 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	1,360	43	371	12	1,143	36	139	4	143	5	3,155	100
Singida Rural	0	0	0	0	249	26	243	25	466	49	958	100
Manyoni	1,503	63	82	3	622	26	165	7	0	0	2,372	100
Singida Urban	0	0	0	0	384	90	43	10	0	0	427	100
Total	2,863	41	453	7	2,398	35	590	9	608	9	6,912	100

12.1.17 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Herbicides by District, 2002/03 Agricultural Year

District	Between 1 and 3 km		Total	
	Number	%	Number	%
Singida Rural	117	100	117	100
Total	117	100	117	100

12.1.18 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Improved Seeds by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	2,098	40	562	11	1,857	35	265	5	514	10	5,295	100
Singida Rural	3,523	40	861	10	1,114	13	738	8	2,503	29	8,740	100
Manyoni	6,031	55	1,184	11	1,516	14	1,147	11	1,024	9	10,901	100
Singida Urban	425	29	0	0	553	37	415	28	85	6	1,479	100
Total	12,076	46	2,607	10	5,041	19	2,566	10	4,126	16	26,415	100

12.1.19 ACCESS TO INPUTS: Number of Agricultural Households and Source of Finance for buying Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Sale of Farm Products		Other Income generating activities		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	287	100	0	0	0	0	287	100
Singida Rural	123	100	0	0	0	0	123	100
Manyoni	630	29	623	28	955	43	2,208	100
Singida Urban	41	100	0	0	0	0	41	100
Total	1,081	41	623	23	955	36	2,659	100

12.1.20 ACCESS TO INPUTS: Number of Agricultural Households and Source of Finance for buying Farm Yard Manure by District, 2002/03 Agricultural Year

District	Sale of Farm Products		Other Income generating activities		Remittances		Bank Loan		Produced on form		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	23,815	66	4,247	12	1,820	5	289	1	1,577	4	4,415	12	36,163	100
Singida Rural	22,627	66	3,580	10	862	3	0	0	0	0	7,128	21	34,198	100
Manyoni	3,887	59	1,774	27	326	5	74	1	0	0	580	9	6,641	100
Singida Urban	3,931	63	1,142	18	210	3	0	0	0	0	975	16	6,257	100
Total	54,260	65	10,742	13	3,219	4	363	0	1,577	2	13,099	16	83,259	100

12.1.21 ACCESS TO INPUTS: Number of Agricultural Households and Source of Finance for buying COMPOST Manure by District, 2002/03 Agricultural Year

District	Sale of Farm Products		Other Income generating activities		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	2,416	85	287	10	143	5	2,845	100
Singida Rural	2,500	72	476	14	495	14	3,471	100
Manyoni	497	75	85	13	78	12	660	100
Singida Urban	429	53	127	16	254	31	810	100
Total	5,842	75	975	13	969	12	7,786	100

12.1.22 ACCESS TO INPUTS: Number of Agricultural Households and Source of Finance for buying Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Sale of Farm Products		Other Income generating activities		Remittances		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	1,788	57	943	30	143	5	282	9	3,155	100
Singida Rural	958	100	0	0	0	0	0	0	958	100
Manyoni	797	34	542	23	158	7	874	37	2,372	100
Singida Urban	384	90	43	10	0	0	0	0	427	100
Total	3,927	57	1,528	22	301	4	1,156	17	6,912	100

12.1.23 ACCESS TO INPUTS: Number of Agricultural Households and Source of Finance for buying Herbicides by District, 2002/03 Agricultural Year

District	Sale of Farm Products		Total	
	Number	%	Number	%
Singida Rural	117	100	117	100
Total	117	100	117	100

12.1.24 ACCESS TO INPUTS: Number of Agricultural households and Source of Finance for buying Improved Seeds by District, 2002/03 Agricultural Year

District	Sale of Farm Products		Income generating activities		Remittances		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	3,754	71	1,541	29	0	0	0	0	5,295	100
Singida Rural	5,239	60	2,433	28	703	8	365	4	8,740	100
Manyoni	2,665	24	7,262	67	414	4	560	5	10,901	100
Singida Urban	546	37	763	52	42	3	127	9	1,479	100
Total	12,204	46	11,999	45	1,160	4	1,052	4	26,415	100

12.1.25 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Labour Required		Do not Know How to Use		Input is of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	19,319	31	33,214	53	1,738	3	0	0	1,269	2	5,997	10	705	1	62,242	100
Singida Rural	25,679	35	28,673	39	730	1	0	0	4,176	6	12,964	18	852	1	73,074	100
Manyoni	16,193	52	12,025	39	254	1	83	0	798	3	1,420	5	85	0	30,857	100
Singida Urban	1,856	17	6,210	56	296	3	0	0	550	5	2,171	20	42	0	11,125	100
Total	63,046	36	80,121	45	3,019	2	83	0	6,794	4	22,551	13	1,685	1	177,298	100

12.1.26 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Farm Yard Manure by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	7,261	28	6,375	24	3,133	12	1,285	5	1,031	4	5,715	22	1,564	6	26,365	100
Singida Rural	18,314	47	6,389	16	6,984	18	2,158	6	248	1	2,951	8	2,080	5	39,124	100
Manyoni	10,264	39	1,324	5	10,451	40	2,349	9	819	3	918	3	300	1	26,424	100
Singida Urban	3,769	78	486	10	286	6	0	0	41	1	117	2	127	3	4,827	100
Total	39,608	41	14,574	15	20,854	22	5,792	6	2,140	2	9,701	10	4,071	4	96,740	100

12.1.27 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using COMPOST Manure by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	9,052	15	8,443	14	12,785	21	3,998	7	17,711	30	6,707	11	136	0	851	1	59,683	100
Singida Rural	7,594	11	8,041	12	25,178	36	3,224	5	19,576	28	4,907	7	115	0	1,090	2	69,726	100
Manyoni	728	2	919	3	12,020	37	1,043	3	15,438	48	1,156	4	932	3	170	1	32,404	100
Singida Urban	2,720	26	991	10	3,169	31	127	1	2,122	21	686	7	0	0	500	5	10,316	100
Total	20,094	12	18,394	11	53,152	31	8,392	5	54,847	32	13,456	8	1,183	1	2,611	2	172,129	100

12.1.28 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	6,239	11	44,350	75	566	1	415	1	1,846	3	5,394	9	141	0	421	1	59,373	100
Singida Rural	13,391	19	39,415	55	728	1	123	0	12,172	17	5,687	8	0	0	722	1	72,239	100
Manyoni	9,365	31	16,748	55	415	1	165	1	3,440	11	474	2	0	0	85	0	30,693	100
Singida Urban	254	2	7,310	68	254	2	42	0	548	5	2,162	20	0	0	127	1	10,699	100
Total	29,250	17	107,824	62	1,964	1	746	0	18,007	10	13,717	8	141	0	1,355	1	173,003	100

12.1.29 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Herbicides by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	11,470	18	36,390	58	1,232	2	143	0	2,270	4	10,881	17	143	0	62,528	100
Singida Rural	15,239	21	30,457	42	619	1	372	1	13,284	18	12,387	17	722	1	73,080	100
Manyoni	11,766	36	12,440	38	415	1	165	0	6,763	20	1,430	4	85	0	33,065	100
Singida Urban	338	3	5,474	49	424	4	42	0	486	4	4,192	38	170	2	11,125	100
Total	38,814	22	84,762	47	2,689	1	722	0	22,804	13	28,889	16	1,119	1	179,799	100

12.1.30 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Improved Seeds by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	2,487	4	51,275	90	691	1	276	0	1,520	3	143	0	841	1	57,233	100
Singida Rural	17,733	28	43,047	67	614	1	990	2	985	2	240	0	722	1	64,332	100
Manyoni	5,304	24	15,708	71	167	1	570	3	164	1	82	0	168	1	22,164	100
Singida Urban	762	8	8,248	86	169	2	85	1	127	1	0	0	255	3	9,647	100
Total	26,287	17	118,278	77	1,641	1	1,921	1	2,797	2	465	0	1,987	1	153,375	100

12.1.31 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	143	50	143	50	0	0	287	100
Singida Rural	123	100	0	0	0	0	123	100
Manyoni	317	14	1,572	71	319	14	2,208	100
Singida Urban	0	0	41	100	0	0	41	100
Total	584	22	1,756	66	319	12	2,659	100

12.1.32 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Farm Yard Manure by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Poor		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	11,722	32	23,063	64	1,377	4	0	0	36,163	100
Singida Rural	19,497	57	13,884	41	817	2	0	0	34,198	100
Manyoni	2,697	41	3,777	57	84	1	83	1	6,641	100
Singida Urban	2,090	33	3,702	59	466	7	0	0	6,257	100
Total	36,006	43	44,426	53	2,744	3	83	0	83,259	100

12.1.33 ACCESS TO INPUTS: Number of Agricultural Households and Quality of COMPOST Manure by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	855	30	1,848	65	143	5	2,845	100
Singida Rural	1,672	48	1,678	48	121	3	3,471	100
Manyoni	0	0	236	36	424	64	660	100
Singida Urban	42	5	533	66	235	29	810	100
Total	2,569	33	4,295	55	923	12	7,786	100

12.1.34 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Poor		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	571	18	1,909	61	390	12	285	9	3,155	100
Singida Rural	351	37	358	37	0	0	249	26	958	100
Manyoni	648	27	1,580	67	144	6	0	0	2,372	100
Singida Urban	117	27	277	65	33	8	0	0	427	100
Total	1,687	24	4,124	60	567	8	534	8	6,912	100

12.1.35 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Herbicides by District, 2002/03 Agricultural Year

District	Good		Total	
	Number	%	Number	%
Singida Rural	117	100	117	100
Total	117	100	117	100

12.1.36 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Improved Seeds by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Poor		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	713	13	4,191	79	392	7	0	0	5,295	100
Singida Rural	3,841	44	4,419	51	480	5	0	0	8,740	100
Manyoni	2,829	26	7,492	69	496	5	84	1	10,901	100
Singida Urban	532	36	787	53	160	11	0	0	1,479	100
Total	7,914	30	16,889	64	1,528	6	84	0	26,415	100

12.1.37 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use Next Year Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Number of Agricultural Households With Plan to use Next Year Chemical Fertilizers		Number of Agricultural Households With NO Plan to use Next Year Chemical Fertilizers		Total	
	Number	%	Number	%	Number	%
Iramba	1,961	3	60,567	97	62,528	100
Singida Rural	2,568	4	70,629	96	73,197	100
Manyoni	2,551	8	30,514	92	33,065	100
Singida Urban	0	0	11,167	100	11,167	100
Total	7,080	4	172,877	96	179,957	100

12.1.38 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use Next Year Farm Yard Manure by District, 2002/03 Agricultural Year

District	Number of Agricultural Households With Plan to use Next Year Farm Yard Manure		Number of Agricultural Households With NO Plan to use Next Year Farm Yard Manure		Total	
	Number	%	Number	%	Number	%
Iramba	41,568	66	20,961	34	62,528	100
Singida Rural	49,814	68	23,507	32	73,322	100
Manyoni	14,922	45	18,143	55	33,065	100
Singida Urban	7,096	64	3,988	36	11,084	100
Total	113,400	63	66,599	37	179,999	100

12.1.39 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use Next Year COMPOST Manure by District, 2002/03 Agricultural Year

District	Number of Agricultural Households With Plan to use Next Year COMPOST Manure		Number of Agricultural Households With NO Plan to use Next Year COMPOST Manure		Total	
	Number	%	Number	%	Number	%
Iramba	5,406	9	57,123	91	62,528	100
Singida Rural	12,973	18	60,224	82	73,197	100
Manyoni	4,156	13	28,909	87	33,065	100
Singida Urban	961	9	10,165	91	11,125	100
Total	23,495	13	156,421	87	179,915	100

12.1.40 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use Next Year Pesticides/Fungicides by District, 2002/03 Agricultural Year

District	Number of Agricultural Households With Plan to use Next Year Pesticides/Fungicides		Number of Agricultural Households With NO Plan to use Next Year Pesticides/Fungicides		Total	
	Number	%	Number	%	Number	%
Iramba	11,331	18	51,197	82	62,528	100
Singida Rural	16,046	22	57,151	78	73,197	100
Manyoni	7,329	22	25,736	78	33,065	100
Singida Urban	554	5	10,572	95	11,125	100
Total	35,260	20	144,655	80	179,915	100

12.1.41 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use Next Year Herbicides by District, 2002/03 Agricultural Year

District	Number of Agricultural Households With Plan to use Next Year Herbicides		Number of Agricultural Households With NO Plan to use Next Year Herbicides		Total	
	Number	%	Number	%	Number	%
Iramba	2,248	4	60,280	96	62,528	100
Singida Rural	1,596	2	71,601	98	73,197	100
Manyoni	322	1	32,742	99	33,065	100
Singida Urban	0	0	11,125	100	11,125	100
Total	4,166	2	175,749	98	179,915	100

12.1.42 ACCESS TO INPUTS: Number of Agricultural Households using Improved Seeds by District, 2002/03 Agricultural Year

District	Number of Agricultural Households With Plan to use Next Year Improved Seeds		Number of Agricultural Households With NO Plan to use Next Year Improved Seeds		Total	
	Number	%	Number	%	Number	%
Iramba	17,805	28	44,723	72	62,528	100
Singida Rural	30,914	42	42,158	58	73,072	100
Manyoni	16,732	51	16,333	49	33,065	100
Singida Urban	2,605	23	8,520	77	11,125	100
Total	68,057	38	111,734	62	179,790	100

12.2.1 ACCESS TO EQUIPMENT: Number of Equipment/Assets Owned/ Rented by the Household During 2002/03

District	Implement / Asset Name									
	Hand Hoe		Hand Powered Sprayer		Oxen		Ox Plough		Ox Seed Planter	
	Number Owned	Number Rented	Number Owned	Number Rented	Number Owned	Number Rented	Number Owned	Number Rented	Number Owned	Number Rented
Iramba	203,512	4,441	3,961	1,950	103,723	109,170	27,669	29,955	423	141
Singida Rural	237,999	1,107	935	1,221	79,536	36,492	23,670	11,415	123	0
Manyoni	110,816	499	5,302	242	17,955	4,744	5,180	1,704	0	84
Singida Urban	35,192	333	308	33	2,648	1,031	1,047	581	0	0
Total	587,519	6,380	10,506	3,445	203,863	151,437	57,565	43,654	546	225

cont.... ACCESS TO EQUIPMENT: Number of Equipment/Assets Owned/ Rented by the Household During 2002/03

District	Implement / Asset Name											
	Ox Cart		Tractor		Tractor Plough		Tractor Harrow		Threshers / Shellers		Total	
	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented	Owned	Rented
Iramba	4,906	3,745	138	412	0	829	0	0	0	0	344,332	150,643
Singida Rural	3,498	2,647	0	0	0	0	245	0	0	0	346,007	52,882
Manyoni	905	85	0	0	0	0	0	85	0	79	140,158	7,522
Singida Urban	338	338	0	0	0	0	0	0	0	0	39,533	2,316
Total	9,647	6,815	138	412	0	829	245	85	0	79	870,029	213,363

12.2.2 ACCESS TO EQUIPMENT: Number of Agricultural Households that used Farm Implements/Assets in 2002/03 by District, 2002/03

District	Implement / Asset Name									
	Hand Hoe	Hand Powered Sprayer	Oxen	Ox Plough	Ox Seed Planter	Ox Cart	Tractor	Tractor Plough	Tractor Harrow	Threshers / Shellers
Iramba	61,826	2,303	52,565	48,948	421	7,703	406	545	0	0
Singida Rural	72,712	1,677	33,048	31,468	123	6,023	0	0	123	0
Manyoni	33,065	2,158	4,154	4,070	84	823	0	0	85	79
Singida Urban	11,125	341	1,173	1,331	0	371	0	0	0	0
Total	178,728	6,479	90,940	85,816	628	14,919	406	545	208	79

12.2.3 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using Hand Hoe by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Equipment / Asset of No Use		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	137	19	0	0	565	81	0	0	702	100
Singida Rural	0	0	240	66	0	0	123	34	363	100
Total	137	13	240	23	565	53	123	12	1,065	100

12.2.4 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using Hand Powered Sprayer by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Too Much Labour Required		Equipment / Asset of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	3,195	5	26,951	45	22,333	37	143	0	6,747	11	857	1	60,225	100
Singida Rural	18,796	26	33,870	47	11,584	16	0	0	7,144	10	125	0	71,519	100
Manyoni	5,910	19	17,205	56	7,306	24	0	0	486	2	0	0	30,907	100
Singida Urban	1,357	13	3,696	34	2,364	22	0	0	3,368	31	0	0	10,785	100
Total	29,258	17	81,722	47	43,587	25	143	0	17,744	10	982	1	173,436	100

12.2.5 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using OXEN by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Too Much Labour Required		Equipment / Asset of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	137	1	3,375	34	6,311	63	0	0	0	0	141	1	9,964	100
Singida Rural	1,345	3	12,571	31	25,372	63	124	0	247	1	489	1	40,148	100
Manyoni	954	3	5,394	19	22,349	77	139	0	0	0	74	0	28,911	100
Singida Urban	212	2	2,701	27	6,678	67	118	1	159	2	43	0	9,910	100
Total	2,648	3	24,041	27	60,711	68	381	0	406	0	747	1	88,933	100

12.2.6 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using OX Plough by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Too Much Labour Required		Equipment / Asset of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	428	3	4,158	31	7,595	56	133	1	1,124	8	143	1	13,581	100
Singida Rural	980	2	16,610	40	23,645	57	0	0	247	1	246	1	41,729	100
Manyoni	415	1	5,513	19	22,204	77	502	2	288	1	74	0	28,995	100
Singida Urban	329	3	2,324	24	6,813	70	43	0	244	2	43	0	9,794	100
Total	2,151	2	28,605	30	60,257	64	678	1	1,903	2	506	1	94,099	100

12.2.7 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using OX SEED PLANTER by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Too Much Labour Required		Equipment / Asset of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	9,715	16	24,990	40	18,698	30	143	0	7,852	13	709	1	62,108	100
Singida Rural	25,626	35	27,702	38	12,886	18	0	0	6,364	9	496	1	73,074	100
Manyoni	3,489	11	12,911	39	16,154	49	0	0	428	1	0	0	32,981	100
Singida Urban	594	5	2,721	24	3,816	34	0	0	3,909	35	85	1	11,125	100
Total	39,423	22	68,324	38	51,554	29	143	0	18,553	10	1,290	1	179,287	100

12.2.8 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using OX CART by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Too Much Labour Required		Equipment / Asset of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	573	1	21,184	39	28,529	52	143	0	4,111	7	286	1	54,825	100
Singida Rural	3,442	5	32,671	49	29,096	43	123	0	1,596	2	246	0	67,174	100
Manyoni	905	3	10,990	34	19,771	61	139	0	437	1	0	0	32,242	100
Singida Urban	211	2	3,662	34	5,128	48	0	0	1,583	15	170	2	10,754	100
Total	5,131	3	68,507	42	82,524	50	405	0	7,727	5	702	0	164,996	100

12.2.9 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using TRACTOR by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Too Much Labour Required		Equipment / Asset of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	812	1	27,141	44	31,631	51	284	0	2,256	4	0	0	62,123	100
Singida Rural	9,849	13	44,463	61	12,033	16	0	0	6,852	9	0	0	73,197	100
Manyoni	1,130	3	22,317	67	9,321	28	0	0	297	1	0	0	33,065	100
Singida Urban	1,635	15	4,115	37	2,406	22	0	0	2,928	26	43	0	11,125	100
Total	13,425	7	98,035	55	55,391	31	284	0	12,333	7	43	0	179,510	100

12.2.10 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using TRACTOR PLOUGH by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Too Much Labour Required		Equipment / Asset of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	953	2	26,973	44	31,374	51	143	0	2,541	4	0	0	61,983	100
Singida Rural	9,971	14	44,222	60	12,278	17	0	0	6,726	9	0	0	73,197	100
Manyoni	1,284	4	23,365	71	7,403	22	0	0	1,013	3	0	0	33,065	100
Singida Urban	1,593	14	4,196	38	2,407	22	0	0	2,886	26	43	0	11,125	100
Total	13,801	8	98,756	55	53,462	30	143	0	13,165	7	43	0	179,370	100

12.2.11 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using TRACTOR HARROW by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Too Much Labour Required		Equipment / Asset of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	4,796	8	26,299	42	23,350	37	143	0	7,940	13	0	0	62,528	100
Singida Rural	10,212	14	43,838	60	11,797	16	0	0	7,232	10	118	0	73,197	100
Manyoni	1,363	4	23,054	70	7,465	23	159	0	938	3	0	0	32,980	100
Singida Urban	1,592	14	4,112	37	2,407	22	0	0	2,971	27	43	0	11,125	100
Total	17,964	10	97,303	54	45,019	25	302	0	19,082	11	160	0	179,830	100

12.2.12 ACCESS TO EQUIPMENT: Number of Agricultural Households NOT using THRESHERS/SHELLERS by Main Reason for NOT using and District

District	Not Available		Price Too High		No Money to Buy / Rent		Too Much Labour Required		Equipment / Asset of No Use		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	8,867	14	24,883	40	17,048	27	143	0	11,444	18	143	0	62,528	100
Singida Rural	11,677	16	40,756	56	10,557	14	0	0	10,082	14	125	0	73,197	100
Manyoni	1,299	4	23,619	72	7,287	22	223	1	479	1	79	0	32,986	100
Singida Urban	380	3	2,973	27	2,084	19	0	0	5,604	50	85	1	11,125	100
Total	22,223	12	92,231	51	36,976	21	366	0	27,609	15	432	0	179,836	100

12.2.13 ACCESS TO EQUIPMENT: Number of Agricultural Households Owning Hand Hoes by Source of Finance and District

District	Sale of Farm Products		Other Income Generating Activities		Remittances		Bank Loan		Credit		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	38,166	62	11,954	19	3,488	6	0	0	143	0	7,644	12	61,395	100
Singida Rural	47,163	65	21,689	30	1,920	3	118	0	122	0	1,452	2	72,464	100
Manyoni	12,287	37	19,544	59	920	3	80	0	85	0	149	0	33,065	100
Singida Urban	4,561	41	5,105	46	328	3	42	0	0	0	1,089	10	11,125	100
Total	102,177	57	58,292	33	6,656	4	240	0	350	0	10,334	6	178,049	100

12.2.14 ACCESS TO EQUIPMENT: Number of Agricultural Households Owning Hand Powered Sprayer by Source of Finance and District

District	Sale of Farm Products		Other Income Generating Activities		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	932	76	143	12	144	12	1,219	100
Singida Rural	709	85	123	15	0	0	832	100
Manyoni	989	52	926	48	0	0	1,916	100
Singida Urban	182	59	83	27	43	14	308	100
Total	2,812	66	1,276	30	187	4	4,275	100

12.2.15 ACCESS TO EQUIPMENT: Number of Agricultural Households Owning OXEN by Source of Finance and District

District	Sale of Farm Products		Other Income Generating		Remittances		Bank Loan		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	16,998	64	3,674	14	1,422	5	0	0	4,492	17	26,586	100
Singida Rural	16,704	74	4,760	21	246	1	125	1	741	3	22,576	100
Manyoni	2,232	85	387	15	0	0	0	0	0	0	2,619	100
Singida Urban	666	76	126	14	0	0	0	0	84	10	876	100
Total	36,599	70	8,947	17	1,668	3	125	0	5,317	10	52,656	100

12.2.16 ACCESS TO EQUIPMENT: Number of Agricultural Households Owning OX Plough by Source of Finance and District

District	Sale of Farm Products		Other Income Generating		Remittances		Bank Loan		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	15,078	64	4,394	19	850	4	0	0	3,205	14	23,527	100
Singida Rural	15,489	75	4,546	22	245	1	249	1	0	0	20,530	100
Manyoni	1,403	54	1,133	43	83	3	0	0	0	0	2,619	100
Singida Urban	455	61	168	22	0	0	0	0	126	17	750	100
Total	32,425	68	10,242	22	1,178	2	249	1	3,331	7	47,426	100

12.2.17 ACCESS TO EQUIPMENT: Number of Agricultural Households

District	Sale of Farm Products		Generating Activities		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	0	0	137	49	143	51	280	100
Singida Rural	123	100	0	0	0	0	123	100
Total	123	31	137	34	143	35	403	100

12.2.18 ACCESS TO EQUIPMENT: Number of Agricultural Households Owning OX CART by Source of Finance and District

District	Sale of Farm Products		Other Income Generating Activities		Remittances		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	3,336	71	844	18	0	0	497	11	4,677	100
Singida Rural	2,451	73	821	24	103	3	0	0	3,375	100
Manyoni	489	66	249	34	0	0	0	0	738	100
Singida Urban	212	72	42	14	0	0	42	14	296	100
Total	6,488	71	1,955	22	103	1	539	6	9,086	100

12.2.19 ACCESS TO EQUIPMENT: Number of Agricultural Households Owning TRACTOR by Source of Finance and District

District	Sale of Farm		Total	
	Number	%	Number	%
Iramba	138	100	138	100
Total	138	100	138	100

12.2.21 ACCESS TO EQUIPMENT: Number of Agricultural Households Owning TRACTOR HARROW by Source of Finance and District

District	Other Income Generating Activities		Total	
	Number	%	Number	%
Singida Rural	123	100	123	100
Total	123	100	123	100

AGRICULTURE CREDIT

13.1a AGRICULTURE CREDIT: Number of Credits Received By Main Purpose of Credit and District

District	Credit Use						Total Credits
	Labour	Seeds	Fertilizers	Agro-chemicals	Tools / Equipment	Other	
Iramba	124	0	0	0	0	852	976
Singida Rural	246	0	0	0	0	0	246
Manyoni	76	76	1,117	883	74	646	2,872
Singida Urban	0	0	0	0	0	42	42
Total Credits	445	76	1,117	883	74	1,540	4,136

13b AGRICULTURE CREDIT: Number of Agriculture Households receiving Credit by sex of

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Iramba	548	56	428	44	976	100
Singida Rural	246	100	0	0	246	100
Manyoni	723	50.4	712	49.6	1,435	100
Singida Urban	0	0	42	100	42	100
Total	1,516	56	1,182	44	2,698	100

13c AGRICULTURE CREDIT: Number of Households Receiving Credit By Source of Credit By District

District	Source of Credit						Total
	Family, Friend and Relative	Commercial Bank	Co-operative	Saving & Credit Society	Private Individual	Religious Organisation / NGO / Project	
Iramba	837	0	0	139	0	0	976
Singida Rural	0	122	0	0	123	0	246
Manyoni	74	0	1,124	76	0	161	1,435
Singida Urban	0	0	0	0	0	42	42
Total	911	122	1,124	215	123	203	2,698

13d AGRICULTURE CREDIT: Number of Households Receiving Credit By Reason for Not Using Credit By District

District	Reason for Not Using Credit									Total
	Not needed	Not available	Did not want to go into debt	Interest rate/cost too high	Did not know how to get credit	Difficult bureaucracy procedure	Credit granted too late	Other	Don't know about credit	
Iramba	4,030	4,691	8,359	1,133	30,553	1,391	136	560	10,699	61,553
Singida Rural	2,318	11,084	8,061	853	27,783	490	250	242	21,871	72,951
Manyoni	985	6,352	3,700	564	12,180	327	251	65	7,207	31,630
Singida Urban	799	1,172	1,239	234	3,889	107	42	42	3,559	11,083
Total	8,133	23,298	21,358	2,784	74,405	2,315	679	909	43,336	177,217

TREE FARMING AND AGROFORESTRY

14.1 ON FARM TREE FARMING: Number of Households Having Planted Trees By District

District	Did your Hh have any Planted Trees on your land during 2002/					
	Households Having Planted		Households Not Having		Total	
	Number	%	Number	%	Number	%
Iramba	4,606	7	57,922	93	62,528	100
Singida Rural	4,902	7	68,295	93	73,197	100
Manyoni	1,252	4	31,813	96	33,065	100
Singida Urban	792	7	10,333	93	11,125	100
Total	11,552	6	168,364	94	179,915	100

14.2 TREE FARMING: Number of Households with Planted Trees on their Land and and Number of Trees by Planting Location and District

District	Where Planted							
	Mostly on Field / Plot		Mostly Scattered in Field		Mostly in Plantation /		Total	
	Number of Households	Number of Trees	Number of Households	Number of Trees	Number of Households	Number of Trees	Number of Households	Number of Trees
Iramba	2,804	23,500	1,530	28,374	273	2,591	4,606	54,465
Singida Rural	3,315	30,500	988	36,724	598	25,993	4,902	93,217
Manyoni	490	5,432	762	10,871	0		1,252	16,302
Singida Urban	454	17,103	126	631	212	4,677	792	22,410
Total	7,063	76,535	3,406	76,598	1,083	33,261	11,552	186,395
	61.1	41.1	29.5	41.1	9.4	17.8		

14 ON FARM TREE PLANTING: Number of Planted Trees By Species and District

District	Senna Spp	Gravellis	Acacia Spp	Eucalyptus Spp	Cyprus Spp	Calophyllum Inophyllum	Leucena Spp	Syzgyium Spp	Azadritacht a Spp	Jakaranda Spp	Kyaya Spp	Moringa Spp	Total
Iramba	22,284	15,740		5,508			8,149	1,134	1,507	143			54,465
Singida Rural	3,315	23,396	613	53,783	1,850	243	749	2,824	4,743		974	728	93,217
Manyoni	4,474	930			78			255	2,402				16,302
Singida Urban	610	5,470		15,363				883					22,410
Total	30,683	45,536	613	74,654	1,927	243	8,898	5,097	8,652	143	974	8,976	186,395

14 TREE FARMING: Main Use of Trees By District

District	Main Use						
	Planks / Timber	Poles	Fuel for Wood	Shade	Medicinal	Other	Total
Iramba	1,422	832	1,345	1,277	143	1,836	6,856
Singida Rural	3,183	1,079	1,108	615	622	245	6,852
Manyoni	81	0	0	1,410	85	0	1,576
Singida Urban	530	170	125	210	0	42	1,078
Total	5,215	2,081	2,578	3,512	850	2,124	16,361
	31.9	12.7	15.8	21.5	5.2	13.0	100.0

14 TREE FARMING: Second Use of Trees By District

District	Second Use							
	Planks / Timber	Poles	Charcoal	Fuel for Wood	Shade	Medicinal	Other	Total
Iramba	681	423	139	1,691	2,784	286	852	6,856
Singida Rural	1,238	608	0	3,775	863	368	0	6,852
Manyoni	85	85	0	0	165	754	487	1,576
Singida Urban	0	328	0	497	169	42	41	1,078
Total	2,004	1,444	139	5,963	3,981	1,450	1,380	16,361

14.3 TREE FARMING: Number of Households By Whether Village Have a Community Tree Planting Scheme By District

District	does your village have a Community Tree Planting Scheme					
	Have a Community Tree		Does not Have a		Total	
	Number	%	Number	%	Number	%
Iramba	30,810	49	31,718	51	62,528	100
Singida Rural	6,188	9	65,402	91	71,590	100
Manyoni	3,785	11	29,280	89	33,065	100
Singida Urban	4,363	39	6,762	61	11,125	100
Total	45,146	25	133,162	75	178,308	100

14.4 TREE FARMING: Number of Households By Distance to Community Planted Forest (Km) By District

District	Distance to Community Planted Forest (km)						Total
	0-9	1-19	05-29	30-39	40-49	60+	
Iramba	5,908	6,439	5,958	4,515	2,852	5,138	30,810
Singida Rural	3,682	608	364	1,181	354	0	6,188
Manyoni	3,720	0	65	0	0	0	3,785
Singida Urban	1,440	1,493	301	831	127	170	4,363
Total	14,751	8,541	6,687	6,527	3,333	5,307	45,146

14.5 TREE FARMING: Number of Households Involved in Community Tree Planting Scheme By Main Use and District

District	Main use during 2002/03							Total
	Poles	Timber Logs	Charcoal	Firewood	Not Ready to Use	Not Allowed to Use	Other	
Iramba	2,512	1,422	0	5,191	14,153	7,532	0	30,810
Singida Rural	2,222	2,851	0	235	123	0	1,768	7,198
Manyoni	0	84	505	505	2,610	80	0	3,785
Singida Urban	2,458	1,014	85	764	43	0	0	4,363
Total	7,191	5,371	590	6,695	16,929	7,612	1,768	46,157

CROP EXTENSION

15.1 CROP EXTENSION" Number of Households Receiving Extension Messages By District

	Households Receiving Extension Advice		Households Not Receiving Extension Advice		Total Number
	Number	%	Number	%	
Iramba	44,677	71.5	17,851	29	62,528
Singida Rural	26,948	36.8	46,249	63	73,197
Manyoni	10,970	33.2	22,095	67	33,065
Singida Urban	4,107	36.9	7,019	63	11,125
Total	86,702	48	93,214	52	179,915

15.2 CROP EXTENSION: Number of Households By Quality of Extension Services By District

District	Quality of service										
	Very Good		Good		Average		Poor		No Good		Total Number
	Number	%	Number	%	Number	%	Number	%	Number	%	
Iramba	4,865	10.9	31,473	70.7	6,357	14.3	1,277	2.9	562	1.3	44,534
Singida Rural	2,203	8.2	20,347	75.5	3,296	12.2	977	3.6	125	0.5	26,948
Manyoni	1,908	17.4	8,067	73.5	757	6.9	0	0.0	238	2.2	10,970
Singida Urban	372	9.1	2,878	70.1	856	20.8	0	0.0	0	0.0	4,107
Total	9,349	10.8	62,764	72.5	11,267	13.0	2,254	2.6	925	1.1	86,558

15.3 EXTENSION MESSAGES: Number of Households By Source of Extension Messages By District

District	Source of Crop Extension										
	Government		NGO / Development		Cooperative		Large Scale Farm		Other		Total Number
	Number	%	Number	%	Number	%	Number	%	Number	%	
Iramba	44,395	99.7	0	0.0	0	0.0	0	0.0	139	0.3	44,534
Singida Rural	24,980	94.0	368	1.4	250	0.9	855	3.2	125	0.5	26,576
Manyoni	10,452	95.8	453	4.2	0	0.0	0	0.0	0	0.0	10,905
Singida Urban	3,939	96.9	43	1.0	0	0.0	0	0.0	84	2.1	4,065
Total	83,765	97.3	863	1.0	250	0.3	855	1.0	348	0.4	86,081

15.4 EXTENSION MESSAGES: Number of Households By Receiving Advice on Plant Spacing By Source of Messages By District

District	Spacing						Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Total		
Iramba	43,442	0	0	0	139	43,581	62,528	70
Singida Rural	23,521	368	250	855	0	24,993	73,197	34
Manyoni	9,951	453	0	0	0	10,404	33,065	31
Singida Urban	3,602	43	0	0	42	3,687	11,125	33
Total	80,516	863	250	855	181	82,665	179,915	46

15.5 EXTENSION MESSAGES: Number of Households By Receiving Advice on Agrochemicals By Source of Messages By District

District	Use of Agrochemicals						Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Other	Not applicable	Total		
Iramba	25,744	0	0	281	424	26,449	62,528	42
Singida Rural	8,746	240	0	0	373	9,358	73,197	13
Manyoni	6,425	398	146	0	0	6,969	33,065	21
Singida Urban	1,862	0	0	117	42	2,021	11,125	18
Total	42,776	638	146	398	839	44,797	179,915	25

15.6 EXTENSION MESSAGES: Number of Households By Receiving Advice on Erosion Control By Source of Messages By District

District	Erosion Control						Total Number of Households	% of total number of households
	Government	NGO / Development Project	Large Scale Farm	Other	Not applicable	Total		
Iramba	29,272	0	0	139	0	29,411	62,528	47
Singida Rural	11,012	607	0	0	248	11,867	73,197	16
Manyoni	2,228	340	81	0	0	2,648	33,065	8
Singida Urban	2,220	43	0	0	0	2,263	11,125	20
Total	44,732	990	81	139	248	46,189	179,915	26

15.7 EXTENSION MESSAGES: Number of Households By Receiving Advice on Organic Fertiliser Use By Source of Messages By District

District	Organic Fertilizer Use							Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	Total		
Iramba	40,414	0	0	0	139	0	40,553	62,528	65
Singida Rural	20,103	345	245	975	125	120	21,912	73,197	30
Manyoni	9,144	65	0	0	0	0	9,210	33,065	28
Singida Urban	3,474	43	0	0	169	0	3,686	11,125	33
Total	73,137	453	245	975	432	120	75,361	179,915	42

15.8 EXTENSION MESSAGES: Number of Households By Receiving Advice on Inorganic Fertiliser Use By Source of Messages By District

District	Inorganic Fertilizer Use					Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Not applicable	Total		
Iramba	13,022	0	140	268	13,430	62,528	21
Singida Rural	1,480	121	0	250	1,851	73,197	3
Manyoni	4,027	889	161	0	5,078	33,065	15
Singida Urban	744	0	0	0	744	11,125	7
Total	19,273	1,011	302	518	21,104	179,915	12

15.9 EXTENSION MESSAGES: Number of Households By Receiving Advice on Use of Improved Seed By Source of Messages By District

District	Use of Improved Seed							Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	Total		
Iramba	35,152	136	0	0	139	696	36,124	62,528	58
Singida Rural	13,651	361	240	1,950	0	623	16,825	73,197	23
Manyoni	8,709	471	81	0	84	0	9,344	33,065	28
Singida Urban	3,021	85	0	0	75	85	3,266	11,125	29
Total	60,534	1,053	321	1,950	298	1,404	65,559	179,915	36

15.10 EXTENSION MESSAGES: Number of Households By Receiving Advice on Mechanisation / LST By Source of Messages By District

District	Mechanisation / LST			Total
	Government	NGO / Development Project	Not applicable	
Iramba	11,420	144	133	11,697
Singida Rural	245	245	370	860
Manyoni	2,187	163	0	2,350
Singida Urban	425	43	0	468
Total	14,277	594	504	15,375

15.11 EXTENSION MESSAGES: Number of Households By Receiving Advice on Irrigation Technology By Source of Messages By District

District	Irrigation Technology							Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	Total		
Iramba	9,841	859	0	0	0	267	10,966	62,528	18
Singida Rural	3,932	225	120	360	0	0	4,637	73,197	6
Manyoni	1,605	0	0	0	0	0	1,605	33,065	5
Singida Urban	999	33	108	33	286	0	1,458	11,125	13
Total	16,377	1,116	228	393	286	267	18,666	179,915	10

15.12 EXTENSION MESSAGES: Number of Households By Receiving Advice on Crop Storage By Source of Messages By District

District	Crop Storage							Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	Total		
Iramba	33,494	136	0	0	139	143	33,913	62,528	54
Singida Rural	19,093	592	240	1,595	125	373	22,017	73,197	30
Manyoni	9,017	240	65	0	0	0	9,322	33,065	28
Singida Urban	2,886	0	0	0	85	43	3,014	11,125	27
Total	64,491	969	305	1,595	348	558	68,266	179,915	38

15.13 EXTENSION MESSAGES: Number of Households By Receiving Advice on Vermin Control By Source of Messages By District

District	Vermin Control						Total Number of Households	% of total number of households
	Government	NGO / Development Project	Large Scale Farm	Other	Not applicable	Total		
Iramba	21,387	0	0	0	144	21,531	62,528	34
Singida Rural	9,622	244	0	0	247	10,113	73,197	14
Manyoni	7,460	81	65	0	0	7,606	33,065	23
Singida Urban	1,914	43	0	159	33	2,149	11,125	19
Total	40,383	368	65	159	424	41,400	179,915	23

15.14 EXTENSION MESSAGES: Number of Households By Receiving Advice on Agro-processing By Source of Messages By District

District	Agro-progressing							Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	Total		
Iramba	20,118	0	0	0	282	278	20,678	62,528	33
Singida Rural	12,907	494	120	2,570	0	125	16,215	73,197	22
Manyoni	4,570	85	406	65	0	0	5,126	33,065	16
Singida Urban	1,786	0	0	75	684	0	2,545	11,125	23
Total	39,380	579	526	2,710	966	403	44,564	179,915	25

15.15 EXTENSION MESSAGES: Number of Households By Receiving Advice on Agro-forestry By Source of Messages By District

District	Agro-forestry						Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Other	Not applicable	Total		
Iramba	18,553	0	0	139	0	18,692	62,528	30
Singida Rural	7,260	464	0	0	244	7,968	73,197	11
Manyoni	3,242	328	163	82	85	3,900	33,065	12
Singida Urban	2,310	43	43	43	0	2,437	11,125	22
Total	31,365	835	205	264	329	32,997	179,915	18

15.16 EXTENSION MESSAGES: Number of Households By Receiving Advice on Beekeeping By Source of Messages By District

District	Beekeeping						Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Not applicable	Total		
Iramba	5,850	266	0	0	0	6,116	62,528	10
Singida Rural	845	984	0	125	0	1,954	73,197	3
Manyoni	1,424	81	78	0	169	1,752	33,065	5
Singida Urban	43	0	0	0	0	43	11,125	0
Total	8,162	1,331	78	125	169	9,865	179,915	5

15.17 EXTENSION MESSAGES: Number of Households By Receiving Advice on Fish Farming By Source of Messages By District

District	Fish Farming				Total Number of Households	% of total number of households
	Government	NGO / Development Project	Not applicable	Total		
Iramba	2,990	0	0	2,990	62,528	5
Singida Rural	1,342	856	120	2,318	73,197	3
Manyoni	148	85	0	233	33,065	1
Singida Urban	0	0	0	0	11,125	0
Total	4,480	941	120	5,541	179,915	3

15.18 CROP EXTENSION: Number of Agriculture Households Receiving and Adopting Extension Messages by Type of Messages and District (Part 1) During the 2002/03 Agriculture Year, Singida Region

District	Spacing			Use of Agrochemicals			Erosion Control			Organic Fertilizer Use			Inorganic Fertilizer Use		
	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%
Iramba	43,576	38,311	88	26,466	7,452	28	29,145	14,298	49	40,698	29,560	73	12,712	2,159	17
Singida Rural	24,870	24,748	100	8,741	3,307	38	11,621	9,668	83	22,164	18,851	85	986	2,465	250
Manyoni	10,478	9,813	94	6,405	2,531	40	2,544	1,381	54	9,203	3,474	38	3,738	2,932	78
Singida Urban	3,687	3,644	99	2,021	365	18	2,263	1,679	74	3,686	2,579	70	702	75	11
Total	82,611	76,516	93	43,633	13,656	31	45,573	27,026	59	75,750	54,464	72	18,139	7,632	42

15.19 CROP EXTENSION: Number of Agriculture Households Receiving and Adopting Extension Messages by Type of Messages and District (Part 2) During the 2002/03 Agriculture Year, Singida Region

District	Use of Improved Seed			Mechanisation / LST			Irrigation Technology			Crop Storage			Vermin Control		
	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%
Iramba	36,532	11,390	31	10,417	1,709	16	10,003	2,863	29	33,916	28,141	83	21,389	18,139	85
Singida Rural	17,193	10,103	59	618	740	120	2,537	3,423	135	22,266	19,421	87	9,003	10,237	114
Manyoni	9,344	5,231	56	2,200	0	0	1,605	464	29	9,237	8,602	93	7,614	7,021	92
Singida Urban	3,266	1,500	46	468	43	9	1,213	553	46	3,014	2,344	78	2,149	1,573	73
Total	66,335	28,223	43	13,703	2,492	18	15,358	7,304	48	68,433	58,508	85	40,155	36,971	92

15.20 CROP EXTENSION: Number of Agriculture Households Receiving and Adopting Extension Messages by Type of Messages and District (Part 3) During the 2002/03 Agriculture Year, Singida Region

District	Agro-progressing			Agro-forestry			Beekeeping			Fish Farming			Other		
	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%	Received Advice	Adopted Message	%
Iramba	20,293	18,874	93	18,548	6,645	36	5,317	2,453	46	2,730	0	0	2,203	1,360	62
Singida Rural	14,874	15,603	105	8,215	5,394	66	1,586	847	53	2,318	495	21	974	605	62
Manyoni	5,210	5,126	98	3,985	1,070	27	1,752	757	43	168	0	0	82	82	100
Singida Urban	2,460	2,386	97	2,470	927	38	43	43	100	0	0	0	42	42	100
Total	42,837	41,989	98	33,218	14,037	42	8,698	4,100	47	5,216	495	9	3,301	2,089	63

LIVELIHOOD CONSTRAINTS

16.1 LIVELIHOOD CONSTRAINTS: Most Important Constraints By District

District	1st Most Importance										
	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Hunting and Gathering
Iramba	10,333	1,697	29,436	2,187	3,461	698	0	2,303	429	0	0
Singida Rural	12,036	3,187	24,199	11,005	3,194	1,089	361	5,818	2,080	124	123
Manyoni	408	497	14,516	2,553	2,879	742	329	1,313	736	0	0
Singida Urban	2,316	566	2,920	2,451	836	85	43	419	127	85	0

cont.... LIVELIHOOD CONSTRAINTS: Most Important Constraints By District

District	1st Most Importance										
	Access to Potable Water	Access to Credit	Harvesting	Storage	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Local Government Taxation	Access to Off Farm Income
Iramba	4,426	4,190	0	144	141	141	561	0	1,268	140	974
Singida Rural	2,171	1,277	124	353	0	123	3,630	124	1,564	0	613
Manyoni	2,002	823	0	0	85	81	4,341	238	1,286	0	236
Singida Urban	75	203	0	43	0	0	423	43	208	0	286

16.2 LIVELIHOOD CONSTRAINTS: Second Most Important Constraints By District

District	2nd Most Importance										
	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Hunting and Gathering
Iramba	3,467	3,243	12,191	8,543	9,551	1,425	2,367	12,506	428	0	133
Singida Rural	2,776	4,599	17,327	11,522	12,576	2,330	2,338	6,485	3,176	0	0
Manyoni	0	0	6,025	2,912	7,610	568	1,998	3,183	1,144	0	0
Singida Urban	668	926	2,599	2,789	1,146	201	192	929	127	127	0

cont.... LIVELIHOOD CONSTRAINTS: Second Most Important Constraints By District

District	2nd Most Importance										
	Access to Potable Water	Access to Credit	Threshing	Storage	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Access to Off Farm Income	
Iramba	3,134	1,351	0	287	573	576	552	280	1,261	660	
Singida Rural	1,954	1,690	124	124	369	0	2,785	122	2,531	369	
Manyoni	474	1,873	0	255	0	170	2,485	243	3,880	247	
Singida Urban	42	211	0	0	75	0	713	43	169	169	

16.3 LIVELIHOOD CONSTRAINTS: Third Important Constraints By District

District	3rd Most Importance										
	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Access to Potable Water
Iramba	1,981	697	5,903	6,336	9,413	3,109	3,333	12,212	1,573	0	4,920
Singida Rural	1,480	1,729	6,185	6,350	12,619	1,723	8,330	10,775	5,661	0	2,425
Manyoni	0	84	2,112	639	5,945	1,812	4,515	5,753	1,213	0	1,370
Singida Urban	680	637	1,417	1,848	1,010	202	245	2,218	700	160	252

cont.... LIVELIHOOD CONSTRAINTS: Third Important Constraints By District

District	3rd Most Importance										
	Access to Credit	Harvesting	Threshing	Storage	Processing	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Access to Off Farm Income
Iramba	3,008	0	0	282	0	421	1,876	287	289	2,776	4,114
Singida Rural	3,513	220	125	1,540	123	2,033	609	3,034	598	3,767	359
Manyoni	2,044	0	0	590	0	84	819	3,437	167	2,139	340
Singida Urban	414	0	0	42	0	85	0	410	75	244	486

16.4 LIVELIHOOD CONSTRAINTS: Forth Important Constraints By District

District	4th Most Importance										
	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Hunting and Gathering
Iramba	1,081	571	2,662	5,326	8,309	2,131	4,240	8,778	2,081	286	0
Singida Rural	858	725	2,921	2,542	8,103	1,606	4,277	13,806	5,155	122	0
Manyoni	0	82	1,983	489	3,359	554	3,315	6,147	1,719	0	0
Singida Urban	845	340	1,011	837	1,899	160	553	1,570	763	627	85

cont.... LIVELIHOOD CONSTRAINTS: Forth Important Constraints By District

District	4th Most Importance											
	Access to Potable Water	Access to Credit	Harvesting	Threshing	Storage	Processing	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Local Government Taxation
Iramba	8,788	5,502	286	0	714	143	1,685	1,268	429	0	5,951	144
Singida Rural	2,595	7,275	362	487	2,835	363	2,944	2,147	3,860	246	8,639	0
Manyoni	1,149	3,625	85	0	492	84	415	820	4,140	589	3,611	0
Singida Urban	319	583	43	0	117	0	84	169	578	65	116	33

16.5 LIVELIHOOD CONSTRAINTS: Fifth Important Constraints By District

District	5th Most Importance												
	Access to Off Farm Income	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Access to Potable Water	
Iramba	2,154	1,390	570	2,467	7,315	4,928	3,127	2,805	7,291	2,148	0	4,241	
Singida Rural	1,328	1,239	1,481	3,426	1,548	5,159	1,845	4,054	8,156	8,715	369	1,351	
Manyoni	406	0	160	1,462	743	1,419	648	3,085	4,295	2,302	0	989	
Singida Urban	328	542	202	888	572	845	342	510	1,539	1,171	210	338	

cont LIVELIHOOD CONSTRAINTS: Fifth Important Constraints By District

District	5th Most Importance											
	Access to Credit	Harvesting	Threshing	Storage	Processing	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Local Government Taxation	Access to Off Farm Income
Iramba	6,389	144	0	999	0	2,869	1,398	1,260	418	5,514	1,587	5,668
Singida Rural	5,988	247	231	2,684	243	5,357	2,189	6,283	124	8,987	0	2,785
Manyoni	3,230	0	0	330	0	491	905	4,658	331	6,804	0	1,215
Singida Urban	1,284	0	43	85	0	43	127	762	170	560	0	852

16.6 LIVELIHOOD CONSTRAINTS: Least Important Constraints By District

District	1st Least Importance											
	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Hunting and Gathering	Access to Potable Water
Iramba	9,940	2,546	1,948	3,871	1,682	1,287	5,119	2,249	3,330	144	567	979
Singida Rural	6,194	5,623	2,196	4,663	3,565	3,148	4,397	1,229	4,529	1,472	611	2,206
Manyoni	2,495	668	1,652	3,674	2,084	409	2,603	1,000	1,566	83	0	997
Singida Urban	284	235	225	117	455	463	641	291	466	295	75	213

cont.... LIVELIHOOD CONSTRAINTS: Least Important Constraints By District

District	1st Least Importance											
	Access to Credit	Harvesting	Threshing	Storage	Processing	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Local Government Taxation	Access to Off Farm Income
Iramba	2,636	2,016	2,279	1,259	286	3,782	597	1,034	4,347	5,681	2,235	2,714
Singida Rural	2,824	2,353	3,029	3,271	871	3,160	589	3,069	3,339	2,820	5,363	2,677
Manyoni	2,463	329	326	801	251	811	981	1,714	4,121	2,313	330	1,396
Singida Urban	718	287	329	329	128	965	235	712	1,375	810	506	974

16.7 LIVELIHOOD CONSTRAINTS: Second Least Important Constraints By District

District	2nd Least Importance											
	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Hunting and Gathering	Access to Potable Water
Iramba	3,650	6,216	829	4,640	1,786	1,825	3,143	2,332	7,703	144	284	1,279
Singida Rural	1,162	4,500	1,334	2,324	3,084	3,634	4,286	4,133	5,969	2,103	3,311	2,957
Manyoni	248	1,006	887	2,278	1,479	1,064	3,402	2,455	2,773	0	0	1,633
Singida Urban	328	149	244	159	412	266	276	342	592	234	296	403

cont.... LIVELIHOOD CONSTRAINTS: Second Least Important Constraints By District

District	2nd Least Importance											
	Access to Credit	Harvesting	Threshing	Storage	Processing	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Local Government Taxation	Access to Off Farm Income
Iramba	2,879	2,849	1,279	3,729	853	5,337	2,056	2,150	1,313	3,475	713	2,065
Singida Rural	5,918	2,542	2,058	3,998	2,085	3,533	1,348	3,424	2,685	2,593	1,429	2,669
Manyoni	2,957	327	167	1,060	169	1,721	1,400	1,984	2,042	2,070	83	1,859
Singida Urban	742	541	383	659	255	794	296	680	1,333	732	506	502

16.8 LIVELIHOOD CONSTRAINTS: Third Least Important Constraints By District

District	3rd Least Importance											
	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Hunting and Gathering	Access to Potable Water
Iramba	4,879	1,236	834	3,094	1,121	858	4,946	1,542	5,425	288	0	3,147
Singida Rural	1,082	1,674	1,101	2,205	2,070	1,722	3,539	3,184	6,098	4,176	1,852	3,147
Manyoni	83	414	471	1,327	901	803	2,986	1,686	2,690	165	165	2,123
Singida Urban	267	381	242	149	549	320	463	520	792	404	337	340

cont.... LIVELIHOOD CONSTRAINTS: Third Least Important Constraints By District

District	3rd Least Importance											
	Access to Credit	Harvesting	Threshing	Storage	Processing	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Local Government Taxation	Access to Off Farm Income
Iramba	3,554	2,549	3,301	3,828	1,562	4,318	1,567	1,499	3,353	4,564	1,275	3,789
Singida Rural	6,386	2,798	2,751	5,276	1,973	6,458	3,541	2,464	2,562	2,398	1,824	2,917
Manyoni	3,299	750	169	2,488	591	2,886	1,794	1,401	1,312	2,491	83	1,484
Singida Urban	606	552	382	253	85	489	297	1,146	913	930	253	456

16.9 LIVELIHOOD CONSTRAINTS: Forth Least Important Constraints By District

District	4th Least Importance											
	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Hunting and Gathering	Access to Potable Water
Iramba	1,390	1,368	534	1,805	1,638	573	3,489	2,987	5,649	423	431	1,140
Singida Rural	2,329	1,694	865	1,095	1,570	1,415	2,914	3,027	3,594	2,339	2,103	1,592
Manyoni	247	336	983	1,484	806	1,129	2,025	1,725	1,872	579	0	970
Singida Urban	276	361	244	210	539	203	403	380	712	497	210	324

cont.... LIVELIHOOD CONSTRAINTS: Forth Least Important Constraints By District

District	4th Least Importance											
	Access to Credit	Harvesting	Threshing	Storage	Processing	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Local Government Taxation	Access to Off Farm Income
Iramba	3,249	1,839	1,697	4,318	1,974	6,645	2,240	5,221	2,081	6,205	1,538	4,096
Singida Rural	5,232	4,479	1,832	5,515	3,045	5,640	5,023	3,450	2,547	4,933	3,319	3,644
Manyoni	2,073	757	331	1,977	839	3,068	1,536	2,403	1,743	2,822	333	1,607
Singida Urban	479	382	255	1,186	212	709	169	827	720	1,043	253	530

16.10 LIVELIHOOD CONSTRAINTS: Fifth Least Important Constraints By District

District	5th Least Importance											
	Access to Land	Ownership of Land	Soil Cultivation	Soil Fertility	Access to Improved Seed	Irrigation Facilities	Access to Chemical Inputs	Cost of Inputs	Extension Services	Access to Forest Resources	Hunting and Gathering	Access to Potable Water
Iramba	990	1,000	820	2,210	5,308	1,002	3,094	1,251	3,648	288	425	1,951
Singida Rural	1,827	3,420	1,187	843	2,143	1,207	3,288	2,294	3,188	1,225	1,592	869
Manyoni	332	837	993	1,671	824	575	1,705	1,019	2,595	249	0	1,488
Singida Urban	244	212	33	128	369	268	520	488	533	352	84	444

cont.... LIVELIHOOD CONSTRAINTS: Fifth Least Important Constraints By District

District	5th Least Importance											
	Access to Credit	Harvesting	Threshing	Storage	Processing	Marketing Information	Transport Costs	Destruction by Animals	Stealing	Pest and Disease	Local Government Taxation	Access to Off Farm Income
Iramba	2,702	2,136	1,124	2,667	2,273	3,401	2,963	1,845	2,361	6,814	2,828	9,286
Singida Rural	4,940	1,609	1,573	3,503	1,943	4,367	2,082	4,522	4,667	10,367	3,183	5,876
Manyoni	2,785	583	669	1,311	336	1,204	1,668	1,725	3,129	1,739	419	3,377
Singida Urban	583	509	340	626	213	540	211	904	699	1,916	456	412

ANIMAL CONTRIBUTION TO CROP PRODUCTION

17.1 ANIMAL CONTRIBUTION TO CROP PRODUCTION: Number of Households Using Draft Animal to Cultivate Land By District

District	Did you use Draft animals to cultivate your land during 2002/03				
	Households Using Draft Animals		Household Not Using Draft Animals		Total
	Number	%	Number	%	
Iramba	53,098	85	9,430	15	62,528
Singida Rural	32,196	44	41,001	56	73,197
Manyoni	3,990	12	29,075	88	33,065
Singida Urban	1,129	10	9,996	90	11,125
Total	90,414	50	89,502	50	179,915

17.2 ANIMAL CONTRIBUTION TO CROP PRODUCTION: Type of Draft By Number Owned, Used and Area Cultivated (Acres) By District During 2002/03 Agriculture Year

District	Type of Craft														
	Oxen			Bulls			Cows			Donkeys			Total		
	Number Owned	Number Used	Area Cultivated (Hectares)	Number Owned	Number Used	Area Cultivated (Hectares)	Number Owned	Number Used	Area Cultivated (Hectares)	Number Owned	Number Used	Area Cultivated (Hectares)	Number Owned	Number Used	Area Cultivated (Hectares)
Iramba	103,723	212,893	105,194	7,145	6,617	3,696	44,071	3,896	467	4,375	3,950	2,006	159,315	227,356	111,363
Singida Rural	75,877	111,895	59,183	12,481	11,906	975	21,231	8,525	143	1,593	1,848	757	111,182	134,174	61,058
Manyoni	17,955	22,298	16,154	593	1,015	0	3,720	0	0	.	.	.	22,268	23,312	16,154
Singida Urban	2,265	3,296	1,539	338	85	43	168	0	0	.	.	.	2,770	3,381	1,582
Total	199,820	350,382	182,070	20,556	19,623	4,714	69,190	12,421	611	5,969	5,798	2,763	295,535	388,224	190,158

17.3 ANIMAL CONTRIBUTION TO CROP PRODUCTION: Type of Draft By Number Owned, Used and Area Cultivated (Acres) By District During 2002/03 Agriculture Year

District	Type of Craft														
	Oxen			Bulls			Cows			Donkeys			Total		
	Number Owned	Number Used	Area Cultivated (acres)	Number Owned	Number Used	Area Cultivated (acres)	Number Owned	Number Used	Area Cultivated (acres)	Number Owned	Number Used	Area Cultivated (acres)	Number Owned	Number Used	Area Cultivated (acres)
Iramba	103,723	212,893	259,830.0	7,145	6,617	9,128.8	44,071	3,896	1,154.4	4,375	3,950	4,954.1	159,315	227,356	275,067.4
Singida Rural	75,877	111,895	146,181.6	12,481	11,906	2,408.5	21,231	8,525	353.6	1,593	1,848	1,869.9	111,182	134,174	150,813.7
Manyoni	17,955	22,298	39,900.7	593	1,015	0.0	3,720	0	0.0	.	.	.	22,268	23,312	39,900.7
Singida Urban	2,265	3,296	3,801.1	338	85	106.5	168	0	0.0	.	.	.	2,770	3,381	3,907.6
Total	199,820	350,382	449,713.4	20,556	19,623	11,643.8	69,190	12,421	1,508.0	5,969	5,798	6,824.1	295,535	388,224	469,689.3

17.4 ANIMAL CONTRIBUTION TO CROPS: Number of Crop Growing Households Using Organic Fertilizer By Regio During 2002/03 Agriculture Year

District	Did you apply organic fertilizer during 2002/03?					
	Using Organic Fertilizer		Not Using Organic Fertilizer		Total	
	Number	%	Number	%	Number	%
Iramba	34,394	43.2	28,134	28.8	62,528	35.3
Singida Rural	33,417	42.0	38,094	39.0	71,511	40.3
Manyoni	6,154	7.7	26,167	26.8	32,321	18.2
Singida Urban	5,686	7.1	5,322	5.4	11,008	6.2
Total	79,651	100.0	97,717	100.0	177,368	100.0

17.5 ANIMAL CONTRIBUTION TO CROPS: Area of Farm Yard Manure and Compost Application By District During 2002/03 Agriculture Year

District	Farm Yard Manure Area Applied		Compost Area Applied		Total Area applied with Organic Fertilisers	
	Area (%)	%	Area (%)	%	Area (%)	%
Iramba	32,951	47.1	1,731	56.8	34,682	47.5
Singida Rural	27,618	39.5	1,034	33.9	28,652	39.2
Manyoni	5,504	7.9	119	3.9	5,623	7.7
Singida Urban	3,905	5.6	161	5.3	4,067	5.6
Total	69,978	100.0	3,046	100.0	73,023	100.0

CATTLE PRODUCTION

18.1 CATTLE PRODUCTION: Total Number of Households Rearing Cattle By District During 2002/03 Agriculture Year

District	Households Rearing Cattle		Households Not Rearing Cattle		Total	
	Number	%	Number	%	Number	%
Iramba	27,972	44.7	34,556	55.3	62,528	100.0
Singida Rural	35,272	48.2	37,925	51.8	73,197	100.0
Manyoni	4,522	13.7	28,543	86.3	33,065	100.0
Singida Urban	4,739	42.6	6,386	57.4	11,125	100.0
Total	72,505	40.3	107,410	59.7	179,915	100.0

18.2 CATTLE PRODUCTION: Number of Cattle By Type and District as of 1st October, 2003

District	Indigenous		Improved Beef		Improved Dairy		Total Cattle	
	Number of Households	Number of Cattle	Number of Households	Number of Cattle	Number of Households	Number of Cattle	Number of Households	Number of Cattle
Iramba	27,830	449,741	289	433	0	0	27,830	450,174
Singida Rural	35,272	586,883	123	493	372	1,115	35,272	588,491
Manyoni	4,522	173,993	0	0	0	0	4,522	173,993
Singida Urban	4,739	44,501	0	0	0	0	4,739	44,501
Total	72,363	1,255,118	412	925	372	1,115	72,363	1,257,159

18.3 CATTLE PRODUCTION: Number of Households Rearing Cattle, Head of Cattle and Average Head per Household by Herd Size as of 2002/03

Herd Size		Number of Household	%	Number of Cattle	%	Number Per Household
Iramba	1-5	9,954	36	34,822	8	3
	6-10	7,597	27	59,969	13	8
	11-15	3,685	13	45,552	10	12
	16-20	3,232	12	57,561	13	18
	21-30	1,421	5	34,410	8	24
	31-40	710	3	25,450	6	36
	41-50	250	1	11,621	3	47
	61-100	704	3	60,522	13	86
	101-150	137	0	19,134	4	140
	151+	140	1	101,132	22	724
Total		27,830	100	450,174	100	16
Singida Rural	1-5	10,541	30	36,680	6	3
	6-10	11,813	33	92,445	16	8
	11-15	5,970	17	75,972	13	13
	16-20	1,987	6	36,638	6	18
	21-30	2,928	8	73,104	12	25
	31-40	830	2	31,021	5	37
	41-50	123	0	6,135	1	50
	61-100	476	1	43,912	7	92
	101-150	123	0	18,405	3	150
	151+	481	1	174,179	30	362
Total		35,272	100	588,491	100	17
Manyoni	1-5	81	2	242	0	3
	6-10	330	7	2,554	1	8
	11-15	571	13	7,421	4	13
	16-20	968	21	17,726	10	18
	21-30	507	11	12,669	7	25
	31-40	569	13	18,498	11	32
	41-50	416	9	19,468	11	47
	51-60	163	4	8,984	5	55
	61-100	750	17	59,125	34	79
	101-150	82	2	11,420	7	140
151+	84	2	15,886	9	188	
Total		4,522	100	173,993	100	38
Singida Urban	1-5	1,499	32	5,373	12	4
	6-10	1,622	34	13,245	30	8
	11-15	836	18	11,359	26	14
	16-20	614	13	10,803	24	18
	21-30	169	4	3,721	8	22
	Total		4,739	100	44,501	100

18.4 CATTLE PRODUCTION: Number of Cattle by Category and Type of Cattle as of 1st October 2003

Type	Number of Indigenous	Number of Improved Beef	Number of Improved Dairy	Total Cattle
Bulls	100,657	925	.	101,582
Cows	451,353	.	497	451,850
Steers	235,101	.	247	235,348
Heifers	213,743	.	124	213,866
Male Calves	121,206	.	.	121,206
Female Calves	133,059	.	247	133,306
Total	1,255,118	925	1,115	1,257,159

18.5 CATTLE PRODUCTION: Number of Indigenous Cattle By Category and as of 1st October, 2003

District	Category - Indigenous						
	Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	Total
Iramba	37,586	203,723	96,473	51,275	28,101	32,583	449,741
Singida Rural	45,287	165,375	112,942	123,109	68,174	71,996	586,883
Manyoni	12,679	64,675	22,205	33,390	18,737	22,307	173,993
Singida Urban	5,104	17,580	3,480	5,970	6,194	6,173	44,501
Total	100,657	451,353	235,101	213,743	121,206	133,059	1,255,118

18.6 CATTLE PRODUCTION: Number of Indigenous Cattle By Category and as of 1st October, 2003

District	Category - Improved Beef Cattle						
	Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	Total
Iramba	433	433
Singida Rural	493	493
Manyoni
Singida Urban
Total	925	925

18.7 CATTLE PRODUCTION: Number of Indigenous Cattle By Category and as of 1st October, 2003

District	Category - Improved Dairy Cattle						Total
	Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	
Iramba							
Singida Rural		497	247	124		247	1,115
Manyoni							
Singida Urban							
Total		497	247	124		247	1,115

18.8 CATTLE PRODUCTION: Number of Indigenous Cattle By Category and as of 1st October, 2003

District	Category - Total Cattle						Total
	Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	
Iramba	38,019	203,723	96,473	51,275	28,101	32,583	450,174
Singida Rural	45,780	165,872	113,189	123,232	68,174	72,243	588,491
Manyoni	12,679	64,675	22,205	33,390	18,737	22,307	173,993
Singida Urban	5,104	17,580	3,480	5,970	6,194	6,173	44,501
Total	101,582	451,850	235,348	213,866	121,206	133,306	1,257,159

18.9 CATTLE OFFTAKE: Number of Died Cattle and Total Offtake by Category of Cattle and District during 2002/03 Agriculture Year

District	Bulls		Cows		Steers		Heifers		Male Calves		Female Calves		Total Cattle Offtake
	Number Died	Total Cattle Offtake	Number Died	Total Cattle Offtake	Number Died	Total Cattle Offtake	Number Died	Total Cattle Offtake	Number Died	Total Cattle Offtake	Number Died	Total Cattle Offtake	
Iramba	8,190	23,671	37,042	45,382	10,450	28,767	7,922	13,034	11,873	13,689	14,247	15,796	140,339
Singida Rural	13,143	33,773	13,881	25,202	2,078	16,458	3,703	9,657	3,560	4,302	4,616	6,581	95,972
Manyoni	3,408	13,668	3,571	10,325	82	4,061	170	2,626	750	2,322	991	2,230	35,232
Singida Urban	997	4,092	2,614	6,426	42	1,310	1,010	2,592	1,349	2,237	1,596	2,020	18,678
Total	25,738	75,204	57,108	87,334	12,652	50,595	12,805	27,910	17,533	22,550	21,450	26,627	290,220

GOATS PRODUCTION

19.1 GOAT PRODUCTION: Number of Agriculture Households Rearing Goats By District during the 2002/03 Agriculture Year

	Households Rearing Goats		Households Not Rearing		Total
	Number	%	Number	%	Number
Iramba	23,828	38	38,700	62	62,528
Singida Rural	27,499	38	45,698	62	73,197
Manyoni	5,714	17	27,351	83	33,065
Singida Urban	4,026	36	7,100	64	11,125
Total	61,067	34	118,849	66	179,915

19.2 GOAT PRODUCTION: Total Number of Goats by Type and District as of 2st October, 2003

District	Indigenous		Improved for Meat		Improved Dairy		Total Goat	
	Number of Households	Number of Goat	Number of Households	Number of Goat	Number of Households	Number of Goat	Number of Households	Number of Goat
Iramba	23,273	253,149	564	991	701	1,540	23,273	255,680
Singida Rural	27,375	303,892	601	2,669	851	6,941	27,375	313,502
Manyoni	5,629	77,574	0		85	255	5,714	77,829
Singida Urban	4,026	36,771	0		128	637	4,026	37,409
Total	60,302	671,387	1,165	3,659	1,765	9,374	60,387	684,420

19.3 GOAT PRODUCTION: Number of Households Rearing Goats, Herd of Goats and Average Head per Household by Herd Size as of 1st October, 2003

Herd Size		Number of Household	%	Number of Goat	%	Average Number
Iramba	1-4	5,573	24	16,600	6	3
	5-9	8,348	36	53,510	21	6
	10-14	4,531	19	50,215	20	11
	15-19	1,492	6	23,775	9	16
	20-24	1,275	5	26,625	10	21
	25-29	951	4	25,871	10	27
	30-39	571	2	17,701	7	31
	40+	532	2	41,382	16	78
	Total	23,273	100	255,680	100	11
Singida Rural	1-4	7,648	28	22,249	7	3
	5-9	7,533	28	48,705	16	6
	10-14	4,880	18	55,795	18	11
	15-19	2,938	11	48,616	16	17
	20-24	2,332	9	48,968	16	21
	25-29	955	3	24,846	8	26
	30-39	366	1	12,300	4	34
	40+	724	3	52,023	17	72
	Total	27,375	100	313,502	100	11
Manyoni	1-4	1,127	20	3,290	4	3
	5-9	1,542	27	10,380	13	7
	10-14	916	16	10,921	14	12
	15-19	652	11	11,317	15	17
	20-24	724	13	15,082	19	21
	25-29	167	3	4,426	6	26
	30-39	334	6	11,498	15	34
	40+	252	4	10,916	14	43
	Total	5,714	100	77,829	100	14
Singida Urban	1-4	1,251	31	3,945	11	3
	5-9	1,010	25	6,863	18	7
	10-14	1,088	27	11,893	32	11
	15-19	297	7	5,054	14	17
	20-24	211	5	4,465	12	21
	25-29	84	2	2,103	6	25
	30-39	85	2	3,087	8	37
		Total	4,026	100	37,409	100
Total	1-4	15,600	26	46,083	7	3
	5-9	18,432	31	119,458	17	6
	10-14	11,415	19	128,824	19	11
	15-19	5,379	9	88,761	13	17
	20-24	4,541	8	95,141	14	21
	25-29	2,158	4	57,246	8	27
	30-39	1,355	2	44,586	7	33
	40+	1,508	2	104,321	15	69
		Total	60,387	100	684,420	100

19.4.1 GOAT PRODUCTION: Total Number of Goats by Category and Type of Goat as of 1st October, 2003 and District

District	Number of Indigenous	Number of Improved for Meat	Number of Improved Dairy	Total Goat
Billy Goat	102,480	675	1,031	104,186
Castrated Goat	50,861	764	3,913	55,538
She Goat	333,822	1,418	1,736	336,975
Male Kid	93,271	114	1,227	94,613
She Kid	90,953	689	1,467	93,108
Total	671,387	3,659	9,374	684,420

19.6 GOAT PRODUCTION: Number of Indigenous Goat by Category and District as of 1st October, 2003

District	Number of Indigenous					Total
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	
Iramba	41,075	22,266	128,344	31,862	29,601	253,149
Singida Rural	45,028	21,328	151,469	43,935	42,133	303,892
Manyoni	10,397	4,889	35,938	12,334	14,015	77,574
Singida Urban	5,980	2,378	18,071	5,140	5,203	36,771
Total	102,480	50,861	333,822	93,271	90,953	671,387

19.7 GOAT PRODUCTION: Number of Improved Meat Goat by Category and District as of 1st October, 2003

District	Number of Improved for Meat					Total
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	
Iramba	430	144	417	.	.	991
Singida Rural	246	620	1,000	114	689	2,669
Manyoni
Singida Urban
Total	675	764	1,418	114	689	3,659

19.8 GOAT PRODUCTION: Number of Improved Dairy Goat by Category and District as of 1st October, 2003

District	Number of Improved Dairy					Total
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	
Iramba	.	144	710	400	287	1,540
Singida Rural	861	3,769	601	743	968	6,941
Manyoni	170	.	85	.	.	255
Singida Urban	.	.	339	85	213	637
Total	1,031	3,913	1,736	1,227	1,467	9,374

19.4 GOAT PRODUCTION: Number of Total Goat by Category and District as of 1st October, 2003

District	Total Goat					
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	Total
Iramba	41,505	22,555	129,471	32,262	29,888	255,680
Singida Rural	46,134	25,717	153,071	44,792	43,789	313,502
Manyoni	10,567	4,889	36,023	12,334	14,015	77,829
Singida Urban	5,980	2,378	18,410	5,225	5,416	37,409
Total	104,186	55,538	336,975	94,613	93,108	684,420

19.5 Goat OFFTAKE: Goat Offtake By Type and District

District	Goat Type				
	Ram	Castrated Goat	She Goat	Male Kid	She Kid
Iramba	22,981	11,175	28,858	7,898	6,005
Singida Rural	32,313	15,696	27,613	7,846	7,488
Manyoni	9,797	1,474	6,295	1,350	7,188
Singida Urban	3,310	1,691	5,278	834	1,184
Total	68,400	30,036	68,043	17,927	21,864

19.6 Goat OFFTAKE: Number of Goat Died and % of Offtake By Tpe and District

District	Ram		Castrated Goat		She Goat		Male Kid		She Kid		Total Goat Offtake
	Number Died	Total Goat Offtake	Number Died	Total Goat Offtake	Number Died	Total Goat Offtake	Number Died	Total Goat Offtake	Number Died	Total Goat Offtake	
Iramba	5,269	22,981	569	11,175	11,022	28,858	4,615	7,898	5,446	6,005	76,917
Singida Rural	4,265	32,313	1,855	15,696	8,326	27,613	3,962	7,846	5,514	7,488	90,955
Manyoni	4,072	9,797		1,474	2,637	6,295	1,017	1,350	6,520	7,188	26,103
Singida Urban	658	3,310		1,691	1,565	5,278	367	834	761	1,184	12,297
Total	14,264	68,400	2,424	30,036	23,550	68,043	9,961	17,927	18,241	21,864	206,271

19.7 Goat OFFTAKE: Number of Goat Sold and Value by Category and District during 2002/03 Agriculture Year

District	Ram			Castrated Goat			She Goat		
	Number Sold/Traded	Average Value Per Head	Tshs from Sale	Number Sold/Traded	Average Value Per Head	Tshs from Sale	Number Sold/Traded	Average Value Per Head	Tshs from Sale
Iramba	13,570	9,229	89,960,894	7,097	12,869	65,961,329	14,035	7,151	67,952,958
Singida Rural	17,165	8,202	89,770,345	11,383	8,703	51,769,745	12,681	10,100	96,347,581
Manyoni	2,731	13,059	29,648,312	898	10,860	9,806,173	2,601	7,403	12,874,921
Singida Urban	1,593	11,389	14,710,229	1,245	9,188	7,046,845	1,981	7,470	13,193,881
Total	35,059	9,239	224,089,779	20,624	10,560	134,584,092	31,298	8,443	190,369,341

cont.... Goat OFFTAKE: Number of Goat Sold and Value by Category and District during 2002/03 Agriculture Year

District	Male Kid			She Kid			Total		
	Number Sold/Traded	Average Value Per Head	Tshs from Sale	Number Sold/Traded	Average Value Per Head	Tshs from Sale	Number Sold/Traded	Average Value Per Head	Tshs from Sale
Iramba	3,004	4,286	7,220,097	283	4,612	8,378,602	37,989	8,590	239,473,879
Singida Rural	483	2,693	3,312,591	484	24,349	30,011,444	42,197	9,386	271,211,705
Manyoni		5,053	3,651,056	330	4,142	2,416,375	6,561	9,391	58,396,836
Singida Urban	85	3,541	1,491,637	169	79,428	26,788,421	5,073	13,796	63,231,014
Total	3,572	3,862	15,675,381	1,266	17,026	67,594,842	91,819	9,357	632,313,435

SHEEP PRODUCTION

20.1 SHEEP PRODUCTION: Number of Households Rearing Sheep by District as of 1st October, 2002.0/ Agriculture Year

District	Did the household own, raise or manage any Sheep?					
	Households Raising Sheep		Households Not Raising Sheep		Total	
	Number	%	Number	%	Number	%
Iramba	14,969	24	47,559	76	62,528	100
Singida Rural	17,985	25	55,212	75	73,197	100
Manyoni	3,467	10	29,598	90	33,065	100
Singida Urban	2,758	25	8,367	75	11,125	100
Total	39,179	22	140,736	78	179,915	100

20.2 SHEEP PRODUCTION: Number of Sheep by Type of Sheep and District as of 1st October, 2002/03

District	Number of Indigenous	Number of Improved	Total Sheep
Iramba	119,704	.	119,704
Singida Rural	139,366	2,238	141,604
Manyoni	31,901	.	31,901
Singida Urban	16,343	386	16,729
Total	307,314	2,624	309,938

20.3.1 SHEEP PRODUCTION: Number of Households Rearing Sheep, Herd of Sheep and Average Herd Per Household by Herd Size as of 1st October, 2002/03

Herd Size		Total Sheep					
		Number of Household	%	Number of Sheep	%	Average Number Per Household	
Iramba	1-4	7,081	48	19,561	16	3	
	5-9	4,923	33	31,734	27	6	
	10-14	961	6	10,568	9	11	
	15-19	768	5	12,588	11	16	
	20-24	526	4	10,797	9	21	
	25-29	140	1	3,911	3	28	
	30-39	143	1	4,286	4	30	
	40+	284	2	26,258	22	92	
	Total	14,826	100	119,704	100	8	
Singida Rural	1-4	8,625	48	25,026	18	3	
	5-9	5,572	31	36,025	25	6	
	10-14	1,721	10	19,681	14	11	
	15-19	735	4	12,384	9	17	
	20-24	718	4	14,713	10	20	
	30-39	125	1	4,484	3	36	
	40+	489	3	29,291	21	60	
		Total	17,985	100	141,604	100	8
Manyoni	1-4	984	28	2,847	9	3	
	5-9	1,316	38	8,401	26	6	
	10-14	500	14	5,651	18	11	
	15-19	329	10	5,274	17	16	
	20-24	170	5	3,729	12	22	
	30-39	169	5	5,999	19	36	
		Total	3,467	100	31,901	100	9
	Singida Urban	1-4	1,259	46	3,151	19	3
5-9		1,043	38	6,689	40	6	
10-14		286	10	3,242	19	11	
15-19		43	2	639	4	15	
20-24		85	3	1,817	11	21	
25-29		43	2	1,191	7	28	
		Total	2,758	100	16,729	100	6
Total		1-4	17,949	46	50,586	16	3
	5-9	12,854	33	82,849	27	6	
	10-14	3,468	9	39,141	13	11	
	15-19	1,875	5	30,886	10	16	
	20-24	1,498	4	31,056	10	21	
	25-29	182	0	5,102	2	28	
	30-39	436	1	14,769	5	34	
	40+	773	2	55,550	18	72	
	Total	39,036	100	309,938	100	8	

20.4.1 SHEEP PRODUCTION: Total Number of Sheep By Breed Type During the 2002/03 Agriculture Year

Breed	Number of Indigenous	Number of Improved for Mutton	Total Sheep
Ram	46,334	368	46,703
Castrated Sheep	15,989		15,989
She Sheep	154,411	1,003	155,414
Male Lamb	52,662	379	53,040
She Lamb	37,918	873	38,792
Total	307,314	2,624	309,938

20.5 SHEEP PRODUCTION: Total Number of Indigenous Sheep by Category of Sheep and District as of 1st October, 2002/03 Agriculture Year

District	Number of Indigenous					Number of Indigenous
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	
Iramba	22,032	9,838	57,112	14,961	15,761	119,704
Singida Rural	16,642	4,749	72,517	30,541	14,916	139,366
Manyoni	5,306	1,168	16,292	4,051	5,084	31,901
Singida Urban	2,355	234	8,490	3,108	2,157	16,343
Total	46,334	15,989	154,411	52,662	37,918	307,314

20.6 SHEEP PRODUCTION: Total Number of Improved Sheep by Category of Sheep and District as of 1st October, 2002/03 Agriculture Year

District	Number of Improved for Mutton					Number of Improved for Mutton
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	
Iramba						
Singida Rural	368		747	248	873	2,238
Manyoni						
Singida Urban			256	130		386
Total	368		1,003	379	873	2,624

20.7 SHEEP PRODUCTION: Total Number of Sheep by Category of Sheep and District as of 1st October, 2002/03 Agriculture Year

District	Total Sheep					Total Sheep
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	
Iramba	22,032	9,838	57,112	14,961	15,761	119,704
Singida Rural	17,010	4,749	73,265	30,790	15,790	141,604
Manyoni	5,306	1,168	16,292	4,051	5,084	31,901
Singida Urban	2,355	234	8,745	3,238	2,157	16,729
Total	46,703	15,989	155,414	53,040	38,792	309,938

20.8 SHEEP INTAKE: Sheep Intake By Type and District

District	Total Sheep Intake				
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb
Iramba	3,651	286	571	17,036	20,296
Singida Rural	88,381	689	2,401	17,171	15,810
Manyoni	240	169	164	4,308	5,773
Singida Urban	441	126	932	2,155	1,903
Total	92,713	1,270	4,068	40,670	43,782

20.9 SHEEP OFFTAKE: Sheep Offtake By Type and District

District	Sheep Type				
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb
Iramba	23,115	7,292	13,731	2,659	4,770
Singida Rural	13,056	5,067	10,025	744	1,971
Manyoni	1,909	74	2,538	169	894
Singida Urban	1,062	212	2,548	423	382
Total	39,142	12,645	28,843	3,995	8,018

20.9 SHEEP OFFTAKE: Number of Sheep Died and % of Offtake By Type and District

District	Ram		Castrated Sheep		She Sheep		Male Lamb		She Lamb	
	Number Died	Total Sheep Offtake	Number Died	Total Sheep Offtake	Number Died	Total Sheep Offtake	Number Died	Total Sheep Offtake	Number Died	Total Sheep Offtake
Iramba	7,584	23,115	1,818	7,292	6,519	13,731	838	2,659	3,217	4,770
Singida Rural	861	13,056	1,237	5,067	2,945	10,025	620	744	616	1,971
Manyoni	159	1,909		74	589	2,538		169	304	894
Singida Urban	85	1,062		212	507	2,548	295	423	42	382
Total	8,688	39,142	3,055	12,645	10,560	28,843	1,753	3,995	4,179	8,018

20.10 SHEEP OFFTAKE: Number of Sheep Sold and Value (Tshs) by Category and District during 2002/03 Agriculture Year

District	Ram			Castrated Sheep			She Sheep			Male Lamb			She Lamb		
	Number Sold / Traded	Average Value Per Sheep	Tshs from Sale	Number Sold / Traded	Average Value Per Sheep	Tshs from Sale	Number Sold / Traded	Average Value Per Sheep	Tshs from Sale	Number Sold / Traded	Average Value Per Sheep	Tshs from Sale	Number Sold / Traded	Average Value Per Sheep	Tshs from Sale
Iramba	5,384	6,487	27,803,172	3,075	6,476	7,977,535	5,501	5,550	22,424,246		4,333	1,818,642		4,194	2,946,934
Singida Rural	8,674	5,904	30,366,061	1,472	5,886	7,926,491	3,562	5,840	23,571,069		10,939	2,716,542	740	2,667	989,103
Manyoni	846	9,508	7,932,457	74	10,000	742,862	930	7,154	4,226,175	169	5,000	422,798		3,727	596,701
Singida Urban	732	5,420	3,739,535	85	5,669	721,516	1,021	4,804	4,047,027	85	2,531	749,482	298	2,625	444,942
Total	15,636	6,376	69,841,225	4,706	6,248	17,368,405	11,013	5,707	54,268,517	254	5,442	5,707,464	1,038	3,548	4,977,681

PIGS PRODUCTION

21.1 PIG PRODUCTION: Number of Households Raising Pig by District during 2002/03 Agriculture Year

	Households Raising Pig		Households Not Raising		Total
	Number	%	Number	%	Number
Iramba	1,689	2.7	60,839	97.3	62,528
Singida Rural	703	1.0	72,493	99.0	73,197
Manyoni	161	0.5	32,903	99.5	33,065
Singida Urban	0	0.0	11,125	100.0	11,125
Total	2,554	1.4	177,362	98.6	179,915

21.2 PIG PRODUCTION: Number of Households Raising Pig by District during 2002/03 Agriculture Year

District	Number of Household	Number of Pig	Number Per Household
Iramba	1,546	2,508	2
Singida Rural	580	3,464	6
Manyoni	161	403	3
Total	2,288	6,375	3

21.3 PIG POPULATION: Total Number of Pigs by Category of Pigs and District as of 1st October, 2003

District	Boar	Castrated Male	Sow / Gilt	Male Piglet	She Piglet	Total
Iramba	0	144	1,546	273	545	2,508
Singida Rural	684	.	787	996	996	3,464
Manyoni	.	.	81	81	242	403
Total	684	144	2,414	1,350	1,784	6,375

LIVESTOCK PESTS AND PARASITE CONTROL

22.1 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households reporting to have dewormed animals during 2002/03 Agriculture Year by District, 2002/03 Agricultural Year

District	Number of Agricultural		Number of Agricultural		Total	
	Number	% age	Number	% age	Number	% age
Iramba	9,318	29	22,368	71	31,687	100
Singida Rural	20,721	55	16,782	45	37,503	100
Manyoni	1,625	27	4,352	73	5,977	100
Singida Urban	2,439	48	2,648	52	5,086	100
Total	34,103	42	46,150	58	80,253	100

22.2 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households reporting to have dewormed animals during 2002/03 Agriculture Year by District and type of dewormed Livestock

District	Dewormed Goats		Dewormed Cattles		Dewormed Sheep		Dewormed Pigs	
	Yes		Yes		Yes		Yes	
	Number	%	Number	%	Number	%	Number	%
Iramba	5,527	31	7,336	29	2,688	33	1,122	20
Singida Rural	9,755	55	15,223	61	4,251	53	4,125	74
Manyoni	745	4	1,042	4	328	4	314	6
Singida Urban	1,685	10	1,357	5	761	9	33	1
Total	17,712	100	24,959	100	8,029	100	5,593	100

22.3 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households reporting to have encountered tick problems during 2002/03 Agriculture Year by District, 2002/03 Agricultural Year

District	Number of Agricultural		Number of Agricultural		Total	
	Number	% age	Number	% age	Number	% age
Iramba	20,152	65	10,718	35	30,870	100
Singida Rural	28,370	77	8,515	23	36,885	100
Manyoni	4,434	80	1,079	20	5,513	100
Singida Urban	3,419	63	1,979	37	5,399	100
Total	56,375	72	22,292	28	78,667	100

22.4 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households by Method of Tick Control during 2002/03 Agriculture Year and District, 2002/03 Agricultural Year

District	Method of Tick Control											
	None		Spraying		Dipping		Smearing		Other		Total	
	Number	% age	Number	% age	Number	% age	Number	% age	Number	% age	Number	% age
Iramba	2,785	14	8,539	42	5,305	26	855	4	2,667	13	20,152	100
Singida Rural	11,155	39	12,247	43	1,249	4	245	1	3,474	12	28,370	100
Manyoni	919	21	1,636	37	1,315	30	227	5	337	8	4,434	100
Singida Urban	1,425	42	679	20	254	7	298	9	763	22	3,419	100
Total	16,285	29	23,101	41	8,123	14	1,625	3	7,241	13	56,375	100

22.5 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households reporting to have encountered tsetse flies problems during 2002/03 Agriculture Year by District, 2002/03 Agricultural Year

District	Number of Agricultural		Number of Agricultural		Total	
	Number	% age	Number	% age	Number	% age
Iramba	7,565	23.6	24,553	76	32,118	100
Singida Rural	8,494	24.1	26,786	76	35,279	100
Manyoni	1,977	33.6	3,916	66	5,893	100
Singida Urban	85	1.7	5,012	98	5,096	100
Total	18,120	23.1	60,266	77	78,387	100

22.6 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households by Method of Tsetse flies Control during 2002/03 Agriculture Year and District, 2002/03 Agricultural Year

District	Method of Tsetse Flies Control							
	None		Spray		Dipping		Total	
	Number	% age	Number	% age	Number	% age	Number	% age
Iramba	2,566	34	4,423	58	576	8	7,565	100
Singida Rural	4,788	56	3,205	38	500	6	8,494	100
Manyoni	983	50	911	46	83	4	1,977	100
Singida Urban	42	50	43	50	0	0	85	100
Total	8,380	46	8,581	47	1,159	6	18,120	100

OTHER LIVESTOCK

23.1 OTHER LIVESTOCK: Total Number of Other Livestock by Breed and Type

Breed Type	Current Number
Indigenous Chicken	1,643,973
Layer	7,589
Broiler	6,616
Ducks	35,013
Turkeys	7,501
Rabbits	840
Donkeys	16,649
Horse	0
Other	4,001
Total	1,722,182

23.2 OTHER LIVESTOCK: Number of Households Rearing and number of Other Livestock by Type and District

District	Ducks		Turkeys		Rabbits		Donkeys		Other	
	Number	No of Households	Number	No of Households	Number	No of Households	Number	No of Households	Number	No of Households
Iramba	8,357	1,549	.	0	.	0	12,295	3,821	1,142	427
Singida Rural	19,791	2,093	7,501	125	.	0	4,354	1,694	2,859	370
Manyoni	2,528	483	.	0	.	0	.	0	.	0
Singida Urban	4,336	85	.	0	840	42	.	0	.	0
Total	35,013	4,209	7,501	125	840	42	16,649	5,516	4,001	797

23.3 OTHER LIVESTOCK: Number of Chicken by Type and District

District	Chicken Type		
	Layer	Broiler	Total
Singida Rural	2,099	3,586	5,685
Manyoni	5,490	.	5,490
Singida Urban	.	3,030	3,030
Total	7,589	6,616	14,205

23.4 OTHER LIVESTOCK: Number of households with chicken and Category of Chicken by Flock Size

Flock Size	Chicken Type			
	Indigenous Chicken	Layer	Broiler	Total
1 - 4	81,920	449	123	82,492
5 - 9	233,377	2,229	1,510	237,115
10 - 19	487,816	1,684	.	489,501
20 - 29	268,123	.	2,463	270,586
30 - 39	174,050	.	.	174,050
40 - 49	82,720	3,228	.	85,947
50 - 99	159,744	.	2,520	162,264
100+	156,222	.	.	156,222
Total	1,643,973	7,589	6,616	1,658,178

23.4 OTHER LIVESTOCK: Number of households with chicken and Category of Chicken by District

District	Chicken Type				Households Keeping Chicken
	Indigenous Chicken	Layer	Broiler	Total	
Iramba	788,337	.	.	788,337	49,729
Singida Rur	639,213	2,099	3,586	644,898	55,299
Manyoni	157,842	5,490	.	163,332	13,274
Singida Urb	58,581	.	3,030	61,611	7,520
Total	1,643,973	7,589	6,616	1,658,178	125,823

LIVESTOCK PRODUCTS

25.1 LIVESTOCK PRODUCTS: Number of Eggs, Hides and Skins Sold/Consumed/Utilized by the household By District, during 2002/03 Agricultural Year

District	Product Name					
	Eggs		Hides		Skins	
	Sold	Consumed / Utilised	Sold	Consumed / Utilised	Sold	Consumed / Utilised
Iramba	4,321,619	2,516,280	37,940	1,728	16,053	998
Singida Rural	5,377,708	2,562,195	32,443	4,844	32,860	4,464
Manyoni	1,175,075	712,768	7,538	3,169	8,763	1,876
Singida Urban	524,729	283,580	4,270	379	2,350	997
Total	11,399,132	6,074,824	82,192	10,119	60,025	8,335

ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES

27.1 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Cattle Dip and District

District	Distance to Nearest Cattle Dip					Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	
Iramba	13,748	8,149	960	1,571	978	25,406
Singida Rural	4,311	1,779	0	497	124	6,711
Manyoni	3,993	739	84	0	0	4,816
Singida Urban	633	297	0	0	0	931
Total	22,686	10,964	1,044	2,068	1,102	37,864

27.2 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Spray Raced and District

District	Distance to Nearest	
	<5	Total
Iramba	1,546	1,546
Singida Rural	1,358	1,358
Manyoni	2,406	2,406
Total	5,311	5,311

27.3 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Hand Powered Sprayer and District

District	Distance to Nearest Hand Powered Sprayer			
	<5	5 - 9	10 - 14	Total
Iramba	4,909	140	1,287	6,336
Singida Rural	6,199	125	0	6,324
Manyoni	2,315	0	0	2,315
Singida Urban	42	0	43	85
Total	13,465	265	1,330	15,060

27.4 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Cattle Crush and District

District	Distance to Nearest Cattle Crush					Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	
Iramba	21,328	4,439	843	0	137	26,746
Singida Rural	27,631	3,533	233	123	125	31,644
Manyoni	2,662	254	80	0	0	2,996
Singida Urban	2,794	126	0	0	0	2,921
Total	54,415	8,353	1,155	123	261	64,307

27.5 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Primary Market and District

District	Distance to Nearest Primary Market							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Iramba	8,875	12,342	2,283	2,993	3,513	484	0	30,490
Singida Rural	10,427	9,425	4,442	4,765	3,532	605	0	33,196
Manyoni	5,428	4,070	1,919	1,871	1,499	1,171	164	16,121
Singida Urban	972	548	363	84	426	42	0	2,436
Total	25,703	26,385	9,006	9,714	8,970	2,303	164	82,245

27.6 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Secondary Market and District

District	Distance to Nearest Secondary Market						Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	
Iramba	1,508	398	289	424	0	0	2,619
Singida Rural	1,966	3,945	1,837	2,205	981	605	11,539
Manyoni	2,310	0	169	83	0	0	2,562
Singida Urban	0	0	0	0	0	43	43
Total	5,784	4,342	2,295	2,713	981	648	16,763

27.7 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Abattoir and District

District	Distance to Nearest Abattoir							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Iramba	1,551	0	0	0	0	143	0	1,694
Singida Rural	2,956	980	0	0	0	457	593	4,986
Manyoni	2,068	0	170	0	0	0	0	2,238
Singida Urban	75	784	842	593	85	0	0	2,379
Total	6,650	1,764	1,012	593	85	600	593	11,297

27.8 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Slaughter Slab and District

District	Distance to Nearest Slaughter Slab						Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	
Iramba	7,687	1,848	0	1,287	141	0	10,963
Singida Rural	11,386	2,025	0	493	474	860	15,239
Manyoni	2,035	531	85	169	254	0	3,074
Singida Urban	792	794	1,167	170	85	0	3,009
Total	21,901	5,198	1,251	2,120	954	860	32,284

27.9 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Hide/ Skin Shade and District

District	Distance to Nearest Hide/ Skin Shade						Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	50+	
Iramba	3,121	279	0	0	0	0	3,400
Singida Rural	4,899	1,227	0	0	946	241	7,312
Manyoni	2,151	0	85	169	254	0	2,660
Singida Urban	183	1,489	1,060	551	127	0	3,410
Total	10,354	2,996	1,145	720	1,327	241	16,782

27.10 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Input Supply and District

District	Distance to Nearest Input Supply							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Iramba	3,104	1,261	0	424	422	289	1,121	6,621
Singida Rural	2,785	2,229	373	867	6,267	4,972	8,305	25,798
Manyoni	1,697	506	420	488	959	574	239	4,884
Singida Urban	183	1,560	1,742	847	381	42	42	4,798
Total	7,770	5,556	2,535	2,626	8,029	5,876	9,707	42,101

27.11 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Veterinary Clinic and District

District	Distance to Nearest Veterinary Clinic						Total
	<5	5 - 9	10 - 14	20 - 29	30 - 49	50+	
Iramba	2,120	433	286	0	0	675	3,514
Singida Rural	1,366	859	115	1,083	2,440	949	6,812
Manyoni	2,087	0	0	0	0	0	2,087
Singida Urban	0	192	0	0	0	0	192
Total	5,573	1,484	401	1,083	2,440	1,625	12,606

27.12 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Village Holding Gound and District

District	Distance to Nearest Village Holding Gound				Total
	<5	5 - 9	10 - 14	20 - 29	
Iramba	1,695	142	0	0	1,837
Singida Rural	2,917	0	0	487	3,404
Manyoni	2,257	0	0	0	2,257
Singida Urban	33	108	43	0	183
Total	6,902	250	43	487	7,681

27.13 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Village Watering Point/ Dam and District

District	Distance to Nearest Village Watering Point/ Dam					Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	
Iramba	7,938	282	0	0	0	8,220
Singida Rural	13,167	1,941	457	728	120	16,413
Manyoni	2,334	0	84	0	0	2,419
Singida Urban	1,134	42	0	0	0	1,175
Total	24,573	2,264	542	728	120	28,227

27.14 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Drencher and District

District	Distance to Nearest Drencher				Total
	<5	5 - 9	10 - 14	15 - 19	
Iramba	1,694	144	0	1,144	2,982
Singida Rural	5,479	855	0	0	6,334
Manyoni	2,251	0	0	0	2,251
Singida Urban	255	127	43	43	467
Total	9,678	1,126	43	1,187	12,034

FISH FARMING

**28.1 FISH FARMING: Number of Agricultural Households
involved in Fish Farming and District, 2002/03 Agricultural Year**

District	Households NOT Doing Fish Farming		Total	
	Number	%	Number	%
Iramba	62,528	100.0	62,528	100.0
Singida Rural	73,197	100.0	73,197	100.0
Manyoni	33,065	100.0	33,065	100.0
Singida Urban	11,125	100.0	11,125	100.0
Total	179,915	100.0	179,915	100.0

LIVESTOCK EXTENSION

29.1 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Advice By Type of Service Provider and District, 2002/03 Agricultural Year

District	Did Household receive livestock advice during 2002/03?					
	Number of Agricultural		Number of		Total	
	Number	%	Number	%	Number	%
Iramba	21,420	34	41,109	66	62,528	100
Singida Rural	9,465	13	63,732	87	73,197	100
Manyoni	2,831	9	30,234	91	33,065	100
Singida Urban	2,476	22	8,650	78	11,125	100
Total	36,191	20	143,724	80	179,915	100

29.2 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Feeds and Proper Feeding By Source and District, 2002/03 Agricultural Year

District	Source of Advice	
	Government	Total
Iramba	11,956	11,956
Singida Rural	2,691	2,691
Manyoni	1,340	1,340
Singida Urban	807	807
Total	16,795	16,795

29.3 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Housing By Source and District, 2002/03

District	Source of Advice		
	Government	NGO / Development Project	Total
Iramba	11,309	144	11,453
Singida Rural	3,988	123	4,111
Manyoni	1,593	0	1,593
Singida Urban	807	0	807
Total	17,697	267	17,965

29.4 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Proper Milking By Source and District, 2002/03 Agricultural Year

District	Source of Advice			Total
	Government	NGO / Development Project		
Iramba	9,938	0		9,938
Singida Rural	2,463	123		2,586
Manyoni	248	0		248
Singida Urban	807	0		807
Total	13,457	123		13,580

29.5 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Milk Hygiene By Source and District, 2002/03 Agricultural Year

District	Source of Advice			Total
	Government	NGO / Development Project	Large Scale Farmer	
Iramba	10,760	0	0	10,760
Singida Rural	2,592	246	125	2,964
Manyoni	248	0	0	248
Singida Urban	850	0	0	850
Total	14,450	246	125	14,822

29.6 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Disease Control By Source and District, 2002/03 Agricultural Year

District	Source of Advice			Total
	Government	NGO / Development Project	Large Scale Farmer	
Iramba	17,890	705	0	18,594
Singida Rural	6,898	123	120	7,141
Manyoni	1,913	0	0	1,913
Singida Urban	2,306	0	0	2,306
Total	29,007	828	120	29,955

29.7 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Herd /Flock Size and Selection By Source and District, 2002/03 Agricultural

District	Source of Advice			Total
	Government	NGO / Development Project	Large Scale Farmer	
Iramba	11,532	697	0	12,229
Singida Rural	2,565	0	125	2,690
Manyoni	918	0	0	918
Singida Urban	1,522	0	0	1,522
Total	16,537	697	125	17,359

29.8 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice Pasture Establishment and Selection By Source and District, 2002/03

District	Source of Advice			Total
	Government	NGO / Development Project	Large Scale Farmer	
Iramba	12,060	417	0	12,477
Singida Rural	3,038	123	485	3,646
Manyoni	337	0	0	337
Singida Urban	1,084	0	0	1,084
Total	16,520	540	485	17,545

29.9 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Group Formation and Strengthening By Source

District	Source of Advice		Total
	Government	NGO / Development Project	
Iramba	12,342	849	13,191
Singida Rural	2,935	123	3,058
Manyoni	1,261	0	1,261
Singida Urban	797	0	797
Total	17,336	972	18,308

29.10 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Calf Rearing By Source and District, 2002/03 Agricultural Year

District	Source of Advice		
	Government	NGO / Development Project	Total
Iramba	8,722	280	9,003
Singida Rural	3,209	246	3,455
Manyoni	1,095	0	1,095
Singida Urban	1,147	0	1,147
Total	14,173	527	14,700

29.11 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Use of Improved Bulls By Source and District,

District	Source of Advice		
	Government	NGO / Development Project	Total
Iramba	8,458	0	8,458
Singida Rural	3,281	123	3,404
Manyoni	925	0	925
Singida Urban	1,307	0	1,307
Total	13,971	123	14,094

29.12 LIVESTOCK EXTENSION: Number of Agricultural Households By Quality of Extension Services and District, 2002/03 Agricultural

District	Quality of Service											
	Very Good		Good		Average		Poor		No Good		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	3,716	15	17,657	70	3,547	14	287	1	143	1	25,349	100
Singida Rural	2,399	17	7,200	50	971	7	1,713	12	2,165	15	14,448	100
Manyoni	255	12	1,659	80	169	8	0	0	0	0	2,083	100
Singida Urban	255	7	1,608	43	657	18	298	8	892	24	3,709	100
Total	6,625	15	28,123	62	5,344	12	2,297	5	3,199	7	45,588	100

29.13 LIVESTOCK EXTENSION: Number of Agricultural Households By Source of Extension Services and District, 2002/03 Agricultural

District	Extension Provider											
	Government		NGO /		Co-operative		Large Scale Farmer		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	21,420	20	21,420	20	21,420	20	21,420	20	21,420	20	107,098	100
Singida Rural	9,465	20	9,465	20	9,465	20	9,465	20	9,465	20	47,324	100
Manyoni	2,831	20	2,746	20	2,746	20	2,746	20	2,746	20	13,815	100
Singida Urban	2,476	20	2,476	20	2,476	20	2,476	20	2,476	20	12,378	100
Total	36,191	20	36,106	20	36,106	20	36,106	20	36,106	20	180,614	100

29.14 LIVESTOCK EXTENSION: Number of Agricultural Households with/ without Contact farmers/ Group Member and District, 2002/03 Agricultural Year

District	Number of Agricultural		Number of		Total	
	Number	%	Number	%	Number	%
Iramba	9,462	25	27,840	75	37,301	100
Singida Rural	4,010	25	12,267	75	16,278	100
Manyoni	413	15	2,335	85	2,749	100
Singida Urban	457	8	5,103	92	5,561	100
Total	14,343	23	47,545	77	61,888	100

GOVERNMENT REGULATORY PROBLEMS

30.1 GOVERNMENT REGULATORY PROBLEMS: Number of Agricultural Households by Whether Face Problems with Government Regulation During 2003/04 by District, 2002/03 Agricultural Year

District	Did you face problems with Govt regulations during 02/03?					
	Yes		No		Total	
	Number	%	Number	%	Number	%
Iramba	2,525	4	59,860	96	62,385	100
Singida Rural	3,439	5	66,649	95	70,089	100
Manyoni	240	1	32,825	99	33,065	100
Singida Urban	150	1	10,891	99	11,041	100
Total	6,355	4	170,225	96	176,580	100

LABOUR USE

31.1 LABOUR USE: Number of Households by type of Household member and Activity during the 2002/03 Agriculture Year

Activity	Type of Household Member									
	Head of Household Alone	Adults Males	Adult Female	Adults	Boys	Girls	Boys & Girls	All Household Members	Hired Labour	Total
Land Clearing	54,565	19,376	6,538	69,970	1,247	0	586	21,120	3,097	176,501
Soil Preparation by Hand	35,810	9,866	9,908	79,982	779	84	270	25,089	1,772	163,560
Soil Preparation bu Oxen / Tractor	14,219	5,928	1,798	37,946	687	143	422	12,644	2,548	76,334
Planting	18,637	2,831	24,028	83,682	846	250	2,626	44,878	574	178,353
Weeding	13,748	2,297	5,653	89,692	764	84	349	60,636	4,419	177,643
Crop Protection	11,158	2,785	5,012	55,314	1,634	703	7,169	57,773	1,058	142,606
Harvesting	14,349	1,785	4,955	82,224	706	126	697	67,263	1,992	174,096
Crop Processing	15,379	2,752	80,060	31,703	1,452	5,092	6,710	11,388	125	154,659
Crop Marketing	64,776	6,159	4,293	28,363	787	0	370	3,207	125	108,080
Cattle Rearing	35,224	5,508	1,352	11,955	1,357	376	648	7,362	210	63,992
Cattle Herding	23,799	10,130	2,739	9,645	9,198	2,580	6,244	7,638	1,465	73,437
Cattle Marketing	37,537	5,531	924	5,591	433	0	261	694	0	50,971
Goat & Sheep Rearing	26,388	6,140	1,480	9,995	765	433	739	9,816	43	55,797
Goat & Sheep Herding	17,254	8,694	1,926	7,796	6,549	1,981	7,416	10,400	1,399	63,415
Goat & Sheep Marketing	31,570	4,950	1,005	5,239	539	0	342	841	140	44,626
Milking	3,297	1,561	37,336	4,593	1,035	388	2,060	3,726	0	53,996
Pig Rearing	1,622	582	282	691	125	43	123	633	0	4,099
Poultry Keeping	23,688	1,154	21,890	25,315	474	414	1,523	44,019	0	118,477
Collecting Water	13,802	3,209	104,317	16,505	1,475	7,846	11,485	16,225	269	175,134
Collecting Firewood	19,845	4,616	111,881	14,754	1,685	6,384	5,788	10,450	480	175,884
Pole Cutting	54,206	35,091	2,614	4,338	2,124	143	144	616	4,677	103,953
Timber Wood Cutting	2,885	4,472	0	735	0	0	0	0	168	8,260
Building / Maintaining Houses	62,937	32,313	3,062	19,233	1,754	267	185	7,864	5,586	133,200
Making Beer	7,653	1,571	48,381	1,901	42	208	0	143	0	59,899
Beekeeping	6,891	2,117	287	127	0	0	0	118	0	9,541
Fishing	5,449	351	0	271	461	0	43	0	0	6,574
Fish Farming	242	0	0	246	0	0	0	0	0	488
Off - farm Income Generation	60,093	3,460	22,367	42,522	3,511	1,733	955	2,532	155	137,328

31.2 LABOUR USE: Number of Households by type of Household member and Activity during the 2002/03 Agriculture Year

Activity	Type of Household Member									
	Head of Household Alone	Adults Males	Adult Female	Adults	Boys	Girls	Boys & Girls	All Household Members	Hired Labour	Total
Land Clearing	31	11	4	40	1	0	0	12	2	100
Soil Preparation by Hand	22	6	6	49	0	0	0	15	1	100
Soil Preparation bu Oxen / Tractor	19	8	2	50	1	0	1	17	3	100
Planting	10	2	13	47	0	0	1	25	0	100
Weeding	8	1	3	50	0	0	0	34	2	100
Crop Protection	8	2	4	39	1	0	5	41	1	100
Harvesting	8	1	3	47	0	0	0	39	1	100
Crop Processing	10	2	52	20	1	3	4	7	0	100
Crop Marketing	60	6	4	26	1	0	0	3	0	100
Cattle Rearing	55	9	2	19	2	1	1	12	0	100
Cattle Herding	32	14	4	13	13	4	9	10	2	100
Cattle Marketing	74	11	2	11	1	0	1	1	0	100
Goat & Sheep Rearing	47	11	3	18	1	1	1	18	0	100
Goat & Sheep Herding	27	14	3	12	10	3	12	16	2	100
Goat & Sheep Marketing	71	11	2	12	1	0	1	2	0	100
Milking	6	3	69	9	2	1	4	7	0	100
Pig Rearing	40	14	7	17	3	1	3	15	0	100
Poultry Keeping	20	1	18	21	0	0	1	37	0	100
Collecting Water	8	2	60	9	1	4	7	9	0	100
Collecting Firewood	11	3	64	8	1	4	3	6	0	100
Pole Cutting	52	34	3	4	2	0	0	1	4	100
Timber Wood Cutting	35	54	0	9	0	0	0	0	2	100
Building / Maintaining Houses	47	24	2	14	1	0	0	6	4	100
Making Beer	13	3	81	3	0	0	0	0	0	100
Beekeeping	72	22	3	1	0	0	0	1	0	100
Fishing	83	5	0	4	7	0	1	0	0	100
Fish Farming	50	0	0	50	0	0	0	0	0	100
Off - farm Income Generation	44	3	16	31	3	1	1	2	0	100

ACCESS TO INFRASTRUCTURE AND OTHER SERVICES

33.1 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Primary School and District, 2002/03 Agricultural Year

District	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	Total
Iramba	11,882	36,304	14,068	273	0	62,528
Singida Rural	9,510	35,326	25,735	1,791	835	73,197
Manyoni	8,195	10,762	11,131	2,000	978	33,065
Singida Urban	1,693	5,745	3,688	0	0	11,125
Total	31,280	88,137	54,621	4,064	1,813	179,915

33.2 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Secondary School and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Secondary School					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	1,232	5,718	23,977	11,408	20,193	62,528
Singida Rural	1,661	2,442	24,384	20,053	24,656	73,197
Manyoni	993	2,783	7,253	8,734	13,302	33,065
Singida Urban	681	282	3,928	5,686	549	11,125
Total	4,566	11,225	59,542	45,881	58,701	179,915

33.3 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Health Clinic School and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Health Clinic					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	5,586	14,406	34,495	3,252	4,789	62,528
Singida Rural	3,748	15,517	39,001	8,044	6,887	73,197
Manyoni	6,948	7,009	11,943	5,193	1,972	33,065
Singida Urban	647	2,857	6,965	657	0	11,125
Total	16,929	39,790	92,403	17,146	13,648	179,915

33.4 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Hospital School and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Hospital					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	282	255	9,151	8,931	43,909	62,528
Singida Rural	363	487	5,949	7,171	59,226	73,197
Manyoni	167	1,093	3,985	8,247	19,572	33,065
Singida Urban	0	108	4,051	6,118	848	11,125
Total	812	1,944	23,136	30,467	123,556	179,915

33.5 ACCESS TO SERVICES: Number of Agricultural Households by Distance to District Capital and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to District Capital					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	144	0	2,291	1,978	58,115	62,528
Singida Rural	122	0	2,342	235	70,498	73,197
Manyoni	168	85	763	4,010	28,038	33,065
Singida Urban	85	98	3,425	6,543	974	11,125
Total	520	183	8,821	12,765	157,625	179,915

33.6 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Districtal Capital and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Districtal Capital					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	430	141	430	711	60,816	62,528
Singida Rural	740	0	2,341	235	69,882	73,197
Manyoni	80	0	165	247	32,573	33,065
Singida Urban	33	140	3,435	6,544	975	11,125
Total	1,282	281	6,370	7,737	164,245	179,915

33.7 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Feeder Road and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Feeder Road					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	26,122	24,111	11,603	137	556	62,528
Singida Rural	25,961	29,013	16,325	1,057	841	73,197
Manyoni	16,281	12,524	3,925	334	0	33,065
Singida Urban	4,519	5,101	1,505	0	0	11,125
Total	72,882	70,750	33,358	1,528	1,397	179,915

33.8 ACCESS TO SERVICES: Number of Agricultural Households by Distance to All Weather Road and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to ALL Weather Road					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	19,816	17,288	18,627	2,137	4,660	62,528
Singida Rural	13,508	18,074	27,299	7,712	6,603	73,197
Manyoni	9,449	4,995	11,963	4,571	2,087	33,065
Singida Urban	2,386	3,915	4,825	0	0	11,125
Total	45,159	44,271	62,714	14,420	13,351	179,915

33.9 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Tarmac Road and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Tarmac Road					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	15,128	144	429	0	46,827	62,528
Singida Rural	29,500	367	496	483	42,351	73,197
Manyoni	3,936	0	0	0	29,129	33,065
Singida Urban	8,034	151	587	590	1,764	11,125
Total	56,597	662	1,512	1,073	120,071	179,915

33.10 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Primary Market and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Primary Market					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	17,482	5,324	30,514	2,533	6,675	62,528
Singida Rural	11,921	13,204	26,607	9,016	12,449	73,197
Manyoni	3,030	3,977	17,925	5,279	2,853	33,065
Singida Urban	2,819	1,960	5,547	800	0	11,125
Total	35,253	24,465	80,593	17,628	21,977	179,915

33.11 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Secondary Market and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Secondary Market					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	3,303	3,008	38,308	10,099	7,811	62,528
Singida Rural	1,545	4,884	31,897	21,780	13,090	73,197
Manyoni	2,324	2,958	10,886	8,793	8,103	33,065
Singida Urban	4,055	0	2,759	3,310	1,001	11,125
Total	11,228	10,850	83,849	43,983	30,005	179,915

33.12 ACCESS TO SERVICES: Number of Agricultural Households by Distance to Tertiary Market and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Tertiary Market					Total
	Less than 1	1 - 2.9	3 - 9.9	10 - 19.9	Above 20	
Iramba	6,933	1,791	8,267	2,405	43,133	62,528
Singida Rural	1,956	539	3,752	3,205	63,746	73,197
Manyoni	495	734	2,409	5,856	23,571	33,065
Singida Urban	245	66	3,679	6,372	763	11,125
Total	9,629	3,129	18,107	17,839	131,212	179,915

33.13 ACCESS TO LIVESTOCK STRUCTURES: Number of Agricultural Households by Distance to Veterinary Clinic and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Veterinary Clinic						Total
	<5	5 - 9	10 - 14	15 - 19	30 - 49	50 +	
Iramba	2,443	0	143	0	0	124	2,710
Singida Rural	34,812	123	0	0	616	858	36,409
Manyoni	2,708	0	0	0	0	85	2,793
Singida Urban	7,404	42	0	43	0	0	7,489
Total	47,368	165	143	43	616	1,067	49,401

33.14 ACCESS TO LIVESTOCK STRUCTURES: Number of Agricultural Households by Distance to Extension Center

District	Distance (Kilometer) to Extension Center						Total
	<5	5 - 9	10 - 14	15 - 19	30 - 49	50 +	
Iramba	2,429	0	0	143	0	0	2,572
Singida Rural	36,183	244	123	123	371	488	37,532
Manyoni	2,962	0	0	0	0	0	2,962
Singida Urban	7,522	0	0	0	0	0	7,522
Total	49,097	244	123	266	371	488	50,589

33.15 ACCESS TO LIVESTOCK STRUCTURES: Number of Agricultural Households by Distance to Research Station and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Research Station				Total
	<5	20 - 29	30 - 49	50 +	
Iramba	2,306	143	0	124	2,572
Singida Rural	35,681	125	125	373	36,304
Manyoni	2,708	0	0	0	2,708
Singida Urban	7,479	0	0	0	7,479
Total	48,174	268	125	496	49,063

33.16 ACCESS TO LIVESTOCK STRUCTURES: Number of Agricultural Households by Distance to Plant Protection Lab and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Plant Protection Lab			Total
	<5	30 - 49	50 +	
Iramba	2,306	0	124	2,429
Singida Rural	35,323	618	739	36,680
Manyoni	2,708	0	0	2,708
Singida Urban	7,564	0	0	7,564
Total	47,901	618	863	49,382

33.17 ACCESS TO LIVESTOCK STRUCTURES: Number of Agricultural Households by Distance to Land Registration Office and District, 2002/03 Agricultural Year

District	Distance (Kilometer) to Land Registration Office							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50 +	
Iramba	256	2,149	2,253	0	4,914	11,370	41,444	62,386
Singida Rural	1,565	1,841	834	120	11,560	31,525	25,264	72,710
Manyoni	243	510	1,605	2,733	1,793	7,243	18,938	33,065
Singida Urban	84	3,337	4,606	1,777	849	42	74	10,769
Total	2,148	7,838	9,298	4,630	19,116	50,179	85,720	178,930

33.18 ACCESS TO LIVESTOCK STRUCTURES: Number of Agricultural Households by Distance to Livestock Development Center

District	Distance (Kilometer) to Livestock Development Center							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50 +	
Iramba	1,004	2,003	2,282	5,716	1,952	13,889	35,178	62,025
Singida Rural	35,556	246	246	0	125	36,044	610	72,827
Manyoni	2,723	0	0	0	0	30,342	0	33,065
Singida Urban	7,683	42	43	0	0	3,315	0	11,083
Total	46,965	2,292	2,571	5,716	2,077	83,590	35,788	179,000

33.19 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Veterinary Clinic and District, 2002/03 Agricultural Year

District	Satisfaction of Using Veterinary Clinic						Total
	Very Good	Good	Average	Poor	No good	Not applicable	
Iramba	1,929	17,167	8,441	576	2,535	344,521	375,170
Singida Rural	1,570	1,213	3,643	13,580	21,515	397,660	439,181
Manyoni	723	417	587	254	0	196,408	198,389
Singida Urban	42	84	288	2,712	184	63,443	66,752
Total	4,264	18,881	12,960	17,121	24,234	1,002,032	1,079,492

33.20 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Extension Center and District, 2002/03 Agricultural Year

District	Satisfaction of Using Extension Center				
	Very Good	Good	Average	Poor	Total
Iramba	105	124	0	0	229
Singida Rural	365	125	245	125	860
Manyoni	85	417	169	0	672
Total	556	666	414	125	1,761

33.21 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Research Station and District, 2002/03 Agricultural Year

District	Satisfaction of Using Research		
	Very Good	Poor	Total
Iramba	105	0	105
Singida Rural	241	249	491
Manyoni	78	0	78
Total	424	249	674

33.22 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Plant Protection Lab and District, 2002/03 Agricultural Year

District	Satisfaction of Using Plant Protection Lab				
	Very Good	Good	Poor	No good	Total
Iramba	510	0	0	0	510
Singida Rural	471	123	722	123	1,439
Manyoni	255	0	0	0	255
Singida Urban	0	0	42	0	42
Total	1,236	123	764	123	2,246

33.23 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Land Registration Office and District, 2002/03 Agricultural Year

District	Satisfaction of Using Land Registration Office					Total
	Very Good	Good	Average	Poor	No good	
Iramba	527	9,226	4,363	144	1,268	15,529
Singida Rural	246	965	2,903	11,863	21,277	37,254
Manyoni	84	0	333	254	0	671
Singida Urban	42	84	245	2,627	141	3,139
Total	899	10,275	7,845	14,888	22,686	56,593

33.24 TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Livestock Development Center

District	Satisfaction of Using Livestock Development Center					Total
	Very Good	Good	Average	Poor	No good	
Iramba	287	7,817	4,078	432	1,268	13,881
Singida Rural	122	0	370	0	0	493
Manyoni	143	0	0	0	0	143
Singida Urban	0	0	43	42	43	128
Total	552	7,817	4,491	474	1,310	14,644

HOUSEHOLD FACILITIES

34.1: HOUSEHOLD FACILITIES: Number of households reporting average number of rooms and type of Roofing Materials by District, 2002/03 Agricultural Year

District	Number of rooms	Iron Sheet		Tiles		Asbestos		Grass/leaves		Grass/mud		Other		Total
Iramba	3	12,985	20.8	0	0.0	0	0.0	1,488	2.4	48,055	76.9	0	0.0	62,528
Singida Rural	3	15,651	21.4	125	0.2	236	0.3	4,343	5.9	52,230	71.4	612	0.8	73,197
Manyoni	3	6,031	18.2	81	0.2	167	0.5	3,610	10.9	23,176	70.1	0	0.0	33,065
Singida Urban	2	2,580	23.2	0	0.0	0	0.0	253	2.3	8,292	74.5	0	0.0	11,125
Total	3	37,246	21	206	0.1	403	0.2	9,695	5.4	131,753	73.2	612	0.3	179,915

34.2: HOUSEHOLD FACILITIES: Number of Agricultural Households reporting ownership of Assets by District, 2002/03 Agricultural Year

District	Radio			Landline phone			Mobile phone			Iron						
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total				
Iramba	25,945	41	36,584	62,528	133	0.2	62,395	62,528	133	0.2	62,395	62,528	7,936	13	54,593	62,528
Singida Rural	23,577	32	49,620	73,197	364	0.5	72,833	73,197	1,096	1.5	72,101	73,197	8,958	12	64,239	73,197
Manyoni	16,050	49	17,015	33,065	0	0.0	33,065	33,065	84	0.3	32,981	33,065	3,758	11	29,307	33,065
Singida Urban	3,903	35	7,222	11,125	108	1.0	11,017	11,125	150	1.3	10,976	11,125	1,148	10	9,977	11,125
Total	69,474	39	110,441	179,915	605	0.3	179,310	179,915	1,463	0.8	178,452	179,915	21,799	12	158,116	179,915

cont....HOUSEHOLD FACILITIES: Number of Agricultural Households reporting ownership of Assets by District, 2002/03 Agricultural Year

District	Wheelbarrow			Bicycle			Vehicle			Television / Video						
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total				
Iramba	1,655	3	60,874	62,528	21,454	34	41,075	62,528	800	1.3	61,728	62,528	552	0.9	61,976	62,528
Singida Rural	4,665	6	68,532	73,197	18,667	26	54,530	73,197	366	0.5	72,830	73,197	121	0.2	73,075	73,197
Manyoni	1,280	4	31,785	33,065	10,909	33	22,156	33,065	255	0.8	32,810	33,065	85	0.3	32,980	33,065
Singida Urban	403	4	10,722	11,125	2,835	25	8,291	11,125	43	0.4	11,083	11,125	43	0.4	11,083	11,125
Total	8,003	4	171,912	179,915	53,864	30	126,051	179,915	1,464	0.8	178,451	179,915	801	0.4	179,114	179,915

34.3: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Main Source of Energy for Lighting by District, 2002/03 Agricultural Year

District	Mains Electricity		Solar	Gas (Biogas)	Hurricane Lamp		Pressure Lamp	Wick Lamp	Firewood		Other	Total
Iramba	0	0.0	144	0	10,745	22.3	2,386	48,118	992	1.6	143	62,528
Singida Rural	118	0.2	125	118	5,832	9.6	968	61,007	5,028	6.9	0	73,197
Manyoni	0	0.0	0	0	4,327	17.4	573	24,935	3,070	9.3	161	33,065
Singida Urban	0	0.0	0	0	678	7.0	403	9,635	410	3.7	0	11,125
Total	118	0.1	269	118	21,581	15.0	4,330	143,694	9,499	5.3	304	179,915

34.4: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Main Source of Energy for Cooking by District, 2002/03 Agricultural Year

District	Mains Electricity		Solar	Bottled Gas	Parraffin / Kerocine		Charcoal	Firewood	Crop Residues		Livestock Dung	Total
Iramba	0		432	0	143	0.2	1,355	59,894	561	0.9	143	62,528
Singida Rural	373		124	103	0	0.0	1,228	67,855	3,513	4.8	0	73,197
Manyoni	0		85	0	0	0.0	412	32,483	85	0.3	0	33,065
Singida Urban	75		0	0	0	0.0	108	10,899	43	0.4	0	11,125
Total	448		641	103	143	0.1	3,104	171,131	4,202	2.3	143	179,915

34.5: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Main Source of Drinking Water during Wet Season by District, 2002/03 Agricultural Year

District	Piped Water		Protected Well	Protected / Covered Spring	Unprotected Well		Unprotected Spring	Surface Water (Lake / Dam / River / Stream)	Covered Rainwater Catchment		Uncovered Rainwater Catchment	Other	Total
Iramba	12,223		7,144	285	20,133		1,566	16,574	286	18.2	2,749	1,568	62,528
Singida Rural	6,876		14,352	731	23,046		11,033	6,630	0	0.0	10,530	0	73,197
Manyoni	11,506		1,329	255	9,693		999	4,231	162	65.1	4,642	249	33,065
Singida Urban	1,156		4,437	277	3,421		762	735	0	0.0	337	0	11,125
Total	31,761		27,262	1,548	56,293		14,360	28,170	447	24.6	18,257	1,816	179,915

34.6: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Distance to Main Source of Drinking Water during Wet Season by District, 2002/03 Agricultural Year

District	Less than 100m	100 - 299 m	300 - 499 m	500 - 999 m	1 - 1.99 Km	2 - 2.99 Km	3 - 4.99 Km	5 - 9.99 Km	10Km and above	Total
Iramba	4,765	6,403	3,213	14,562	20,662	9,064	2,421	1,439	0	62,528
Singida Rural	5,153	5,007	2,686	19,011	30,124	7,304	3,416	495	0	73,197
Manyoni	735	5,516	2,754	7,141	10,045	4,387	1,825	579	83	33,065
Singida Urban	208	1,231	718	2,665	4,491	1,472	255	85	0	11,125
Total	10,861	18,157	9,370	43,379	65,322	22,227	7,917	2,598	83	179,915

34.7: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water during Wet Season by District, 2002/03 Agricultural Year

District	Less than 10 Minutes	10 - 19 Minutes	20 - 29 Minutes	30 - 39 Minutes	40 - 49 Minutes	50 - 59 Minutes	above one Hour	Total
Iramba	3,085	11,438	3,863	22,796	3,487	1,689	16,169	62,528
Singida Rural	736	13,605	6,752	25,452	5,796	3,189	17,666	73,197
Manyoni	574	7,719	2,316	8,935	2,082	2,321	9,116	33,065
Singida Urban	124	1,706	1,605	4,461	1,047	126	2,056	11,125
Total	4,519	34,469	14,537	61,645	12,413	7,326	45,006	179,915

34.8: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Main Source of Drinking Water during Dry Season by District, 2002/03 Agricultural Year

District	Piped Water	Protected Well	Protected / Covered Spring	Unprotected Well	Unprotected Spring	Surface Water (Lake / Dam / River / Stream)	Covered Rainwater Catchment	Uncovered Rainwater Catchment	Water Vendor	Total HH
Iramba	13,929	8,533	285	15,302	1,566	16,926	143	5,843	0	62,528
Singida Rural	8,236	16,787	608	25,727	12,065	4,658	363	4,633	120	73,197
Manyoni	12,676	1,327	332	11,845	1,466	3,363	78	1,979	0	33,065
Singida Urban	1,240	4,479	362	3,419	804	611	0	210	0	11,125
Total	36,081	31,126	1,587	56,292	15,900	25,559	584	12,666	120	179,915

34.9: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Distance to Main Source of Drinking Water during Dry Season by District, 2002/03 Agricultural Year

District	Less than 100m	100 - 299 m	300 - 499 m	500 - 999 m	1 - 1.99 Km	2 - 2.99 Km	3 - 4.99 Km	5 - 9.99 Km	10Km and above	Total
Iramba	2,066	5,684	2,357	10,999	22,113	8,486	7,822	3,002	0	62,528
Singida Rural	2,798	3,913	1,586	12,095	25,516	11,981	10,650	4,040	618	73,197
Manyoni	160	3,448	1,853	5,507	9,705	5,144	3,031	3,964	253	33,065
Singida Urban	168	1,062	845	2,338	4,407	1,680	424	200	0	11,125
Total	5,192	14,107	6,641	30,939	61,741	27,291	21,926	11,206	871	179,915

34-10: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water during Dry Season by District, 2002/03 Agricultural Year

District	Less than 10 Minutes	10 - 19 Minutes	20 - 29 Minutes	30 - 39 Minutes	40 - 49 Minutes	50 - 59 Minutes	above one Hour	Total
Iramba	1,107	7,107	3,008	16,109	3,037	1,407	30,754	62,528
Singida Rural	866	7,517	4,191	15,228	5,381	1,224	38,789	73,197
Manyoni	248	5,610	1,796	6,279	2,085	2,001	15,046	33,065
Singida Urban	41	902	1,104	3,267	1,379	259	4,173	11,125
Total	2,262	21,136	10,099	40,882	11,882	4,891	88,763	179,915

34-11: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting type of TOILET the household normally use by District, 2002/03 Agricultural Year

District	No Toilet / Bush	Flush Toilet	Traditional Pit Latrine	Improved Pit Latrine - hh Owned	Other Type	Total
Iramba	1,183	280	60,799	266	0	62,528
Singida Rural	5,363	5,607	61,728	248	250	73,197
Manyoni	4,860	328	27,643	152	82	33,065
Singida Urban	833	790	9,333	128	43	11,125
Total	12,238	7,005	159,503	794	375	179,915

34-12: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Number of meals the household normally has per day by District, 2002/03 Agricultural Year

District	One	Two	Three	Four	Total
Iramba	704	30,420	31,405	0	62,528
Singida Rural	3,474	58,471	11,014	237	73,197
Manyoni	973	21,265	10,744	82	33,065
Singida Urban	258	9,519	1,306	42	11,125
Total	5,409	119,676	54,469	361	179,915

34-13: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Number of days the household Consumed Meat during the Preceding Week by District, 2002/03 Agricultural Year

District	Not Eaten	One	Two	Three	Four	Five	Six	Seven	Total
Iramba	17,581	21,534	15,431	6,189	1,128	257	142	266	62,528
Singida Rural	22,390	29,715	14,543	4,252	1,213	719	120	245	73,197
Manyoni	16,771	8,163	5,570	1,674	245	569	0	74	33,065
Singida Urban	4,487	3,361	2,197	490	506	42	0	42	11,125
Total	61,228	62,773	37,741	12,604	3,092	1,587	262	628	179,915

34-14: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Number of days the household Consumed Fish during the Preceding Week by District, 2002/03 Agricultural Year

District	Not Eaten	One	Two	Three	Four	Five	Six	Seven	Total
Iramba	28,811	16,901	13,224	1,558	603	520	316	596	62,528
Singida Rural	26,527	23,590	10,377	5,508	3,028	2,628	827	712	73,197
Manyoni	28,469	3,064	1,040	0	0	161	0	330	33,065
Singida Urban	4,463	3,541	2,069	701	202	107	0	42	11,125
Total	88,270	47,096	26,710	7,767	3,833	3,416	1,143	1,681	179,915

34-15: HOUSEHOLD FACILITIES: Number of Agricultural Households Reportin the status of food satisfaction of the household during the Preceeding Year by District, 2002/03 Agricultural Year

District	Never	Seldom	Sometimes	Often	Always	Total
Iramba	16,052	23,248	3,497	8,186	11,545	62,528
Singida Rural	25,746	24,209	4,382	9,906	8,954	73,197
Manyoni	9,745	9,984	1,406	8,684	3,245	33,065
Singida Urban	3,519	3,585	361	2,928	733	11,125
Total	55,062	61,025	9,646	29,705	24,478	179,915

34-16: HOUSEHOLD FACILITIES: Number of Agricultural Households Reporting Main Source of Income by District, 2002/03 Agricultural Year

District	Sales of Food Crops	Sale of Livestock	Sale of Livestock Products	Sales of Cash Crops	Sale of Forest Products	Business Income	Wages & Salaries in Cash	Other Casual Cash Earnings	Cash Remittance	Fishing	Other	Total
Iramba	2,577	12,554	557	13,065	2,393	3,935	2,735	16,918	6,445	633	717	62,528
Singida Rural	9,121	12,885	471	12,975	3,441	7,166	1,820	21,991	2,833	495	0	73,197
Manyoni	4,280	2,875	0	1,913	4,493	6,252	802	10,702	1,748	0	0	33,065
Singida Urban	411	1,316	211	1,149	1,429	1,819	170	3,670	822	85	42	11,125
Total	16,389	29,629	1,239	29,102	11,756	19,172	5,528	53,280	11,848	1,213	760	179,915

APPENDIX III QUESTIONNAIRES

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Page Number

Agriculture Sample Census 2002/03



ACLF 1: Sub-village leader listing form

Region _____ Code <input style="width:40px;" type="text"/>	Ward _____ Code <input style="width:40px;" type="text"/>
District _____ Code <input style="width:40px;" type="text"/>	Village _____ Code <input style="width:40px;" type="text"/>

Name of Village Chairman:.....

Sub-village leader number	Name of sub-village leader	Number of households		Comments
		From office register	After enumeration	
(1)	(2)	(3)	(4)	(5)
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
<input style="width:30px;" type="text"/>		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	
Total		<input style="width:40px;" type="text"/>	<input style="width:40px;" type="text"/>	

Name of enumerator..... Signature Date.....

Name of supervisor..... Signature Date.....

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Interval
 Starting point

Page Number.....

Agriculture Sample Census 2002/03

ACLF: 2 Household listing form - form for listing household heads and their agriculture activities

Region _____	Code 	Name of Sub-village Leader _____
District _____	Code 	Subvillage leader code
Ward _____	Code 	
Village _____	Code 	Name of Sub-village _____



Household Number	Household head name	Fields +	Number of									✓ if the respondent qualifies to be a farmer *	Farmer Serial Numbers
			Cattle				Goats	Sheep	Pigs	poultry/ducks	Rabbit		
			Total Number	Adult male cattle	Adult female cattle	Calves							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
													
													
													
													
													
													
													
													
													
													
													
													
													
													
													
													
													
													
													
													
													
													
													
Totals													

* **NOTE:** (Column 13) Place a "✓" if the household has at least 1 field over 25m² and/or keeps at least 1 Cow, 5 Goats/Sheep/Pigs or 50 Chicken/poultry or ducks

+ (Column 3) A field must be at least 25 m²

Name of enumerator..... Signature Date.....
 Name of supervisor..... Signature Date.....

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National Agriculture Sample Census 2002/03

ACLF: 3 Household listing of 15 selected farmers

Region _____
 District _____
 Ward _____
 Village _____

Code
 Code
 Code
 Code






S/N	Sub village leader number		Name of sub-village leader	Agriculture hh serial number	Name of selected head of household	Number of							
	(1)	(2)				(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
01				<input type="text"/> <input type="text"/> <input type="text"/>									
02				<input type="text"/> <input type="text"/> <input type="text"/>									
03				<input type="text"/> <input type="text"/> <input type="text"/>									
04				<input type="text"/> <input type="text"/> <input type="text"/>									
05				<input type="text"/> <input type="text"/> <input type="text"/>									
06				<input type="text"/> <input type="text"/> <input type="text"/>									
07				<input type="text"/> <input type="text"/> <input type="text"/>									
08				<input type="text"/> <input type="text"/> <input type="text"/>									
09				<input type="text"/> <input type="text"/> <input type="text"/>									
10				<input type="text"/> <input type="text"/> <input type="text"/>									
11				<input type="text"/> <input type="text"/> <input type="text"/>									
12				<input type="text"/> <input type="text"/> <input type="text"/>									
13				<input type="text"/> <input type="text"/> <input type="text"/>									
14				<input type="text"/> <input type="text"/> <input type="text"/>									
15				<input type="text"/> <input type="text"/> <input type="text"/>									

Name of Enumerator: _____ Signature _____ Date _____

Name of Supervisor _____ Signature _____ Date _____

Ministry of Agriculture and Food Security, Ministry of Water and Livestock Development, Ministry of
 Cooperatives and Marketing and the National Bureau of Statistics

United Republic of Tanzania	
ACQ 1	
CONFIDENTIAL	
Small holder/Small Scale Farmer Questionnaire	
Agriculture Sample Census	
2002/2003	
	

Enumerator	Name	Signature													
	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">Hour</td> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">Minutes</td> </tr> <tr> <td style="text-align: center;">Start time</td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td style="text-align: center;">End time</td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> </tr> </table>		Hour		Minutes	Start time	<input type="text"/>	<input type="text"/>	<input type="text"/>	End time	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Hour		Minutes												
Start time	<input type="text"/>	<input type="text"/>	<input type="text"/>												
End time	<input type="text"/>	<input type="text"/>	<input type="text"/>												
Field level checking by:			<i>To be completed by the supervisor ONLY after field/farm level checking of the enumeration process. This should be countersigned by the enumerator.</i>												
District Supervisor:	Name	signature		Date .. / .. / ..											
Regional Supervisor:	Name	signature		Date .. / .. / ..											
National Supervisor:	Name	signature		Date .. / .. / ..											
District checking in Office:			<i>All questionnaires must be checked at the district office.</i>												
District Supervisor	Name	signature		Date .. / .. / ..											
For Use at National Level only:			<i>See back page for details of query</i>												
Data Entered by	Name	signature		Date .. / .. / ..											
Queried	Name	signature		Date .. / .. / ..											

Executed by the Ministry of Agriculture and Food Security, Ministry of Water and Livestock Development,
 Ministry of Cooperatives and Marketing
 and
 National Bureau of Statistics

1.0 IDENTIFICATION DETAILS			
1.1 Location			
S/N	Location Name	Codes	
1.1.1	Region	<input type="text"/> <input type="text"/>	
1.1.2	District	<input type="text"/>	
1.1.3	Ward	<input type="text"/> <input type="text"/> <input type="text"/>	
1.1.4	Village	<input type="text"/> <input type="text"/>	
1.2 Details of the respondent and household head			
S/N		Codes	
1.2.1	Name & number of local leader	<input type="text"/> <input type="text"/> <input type="text"/>	
1.2.2	Name & number of household head	<input type="text"/> <input type="text"/>	
1.2.3	Sex of household head (Male = 1, Female = 2)	<input type="text"/> <input type="text"/>	
1.2.4	Name of respondent	<input type="text"/> <input type="text"/>	
1.2.5	Relationship of Respondent to Household Head		
<p>Relationship to household head codes (Q 1.2.5) Head of Household.....1 Son/Daughter3 Grandson/Granddaughter5 Other (friend, employee, etc)...8 Spouse2 Father/Mother4 Other relative.....6</p>			
2.0 ACTIVITIES OF THE HOUSEHOLD			
2.1	Type of Agriculture Household	<input type="text"/>	
<p>Agriculture household codes(Q2.1) Crops only.....1 Livestock only2 Pastoralist.....3 Crops and Livestock4</p>			
2.2	Rank the following livelihood activities/source of income of the household in order of importance		
S/N	Livelihood/source of income activity.	Rank in order of importance 1=most 7=least	How important are each of these activities expressed in percentage.
	(1)	(2)	(3)
2.2.1	Annual Crop farming	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.2	Permanent crop farming	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.3	Livestock keeping/herding	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.4	Off Farm Income	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.5	Remittances	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.6	Fishing/hunting and gathering	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.7	Tree/forest resources (eg honey, firewood, timber,etc)	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
			<input type="text"/> <input type="text"/> <input type="text"/> %

Definition and working page for page 1**General Definitions****Small holder hh/small scale farm:**

Should have between 25sq metres and 20 Hectares under production, and/or between 1 and 50 head of Cattle, and/or between 5 and 100 head of Sheep/Goats/Pigs, and/or between 50 and 1000 chickens/turkeys/ducks/rabbits.

Household: A group of people who occupy the whole or part of one or more housing units and makes joint provisions for food and/or other essentials for living.

Household Head: A person who is acknowledged by all other members of the household either by virtue of his age or standing in the household as the head. He/she should be a permanent resident of the house and he/she is the main person responsible for making decisions.

Agricultural Holding: This is an economic unit of agricultural production under single management. It consists of all livestock kept and all land used for agricultural production without regard to title. For the purpose of this survey, the agricultural holdings are restricted to those which meet one of the following conditions:

- Having or operated at least 25 sq meter of arable land
- Own or keep at least one head of cattle or five goats/sheep/pigs or fifty chicken/ducks/turkeys during the agricultural year 2002/03 (October 2002 to September 2003) .

Question Specific Definitions:**Type of Agriculture Holdings Codes (Q2.1):**

- **Crops only:** A holding is referred to be a crops only holding if it has cultivated a piece of land equal or exceeding 25 sq Meter. This also applies to all households owning or have kept livestock whose number does not qualify such household to be an agricultural holding (No cattle, less than 5 goats/sheep/pigs, less than 50 chickens/turkeys/ducks/rabbits)

- **Livestock only:** A holding is referred to be a Livestock only holding if it has exercised Livestock husbandry only during the agricultural year. The livestock can be herded in search for areas of pasture, but the core household unit always remains in the same place and the herder is rarely away from this place for long periods at a time.

- **Livestock pastoralism:** This refers to a household which practices livestock production as its major income generating activity and a means of subsistence, but moves from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they have no permanent place of residence.

For both livestock only and pastoralism , the number of livestock has to be at least 1 head of cattle, 5 goats/sheep/pigs or 50 chickens/turkeys/ ducks/rabbits. This also applies to all households owning or have cultivated a piece of land less than 25 sq meter, which does not qualify such household be an agricultural holding.

- **Both crops and livestock:** A holding is referred to be a both crops and livestock if it has cultivated a piece of land equal or exceeding 25 sq meter and if such households is owning or have kept livestock whose number qualify such household be an agricultural holding.

Important livelihood activities/source of income (Q 2.2):

- **Crop farming:** This refers to a household where crop production is its major means of subsistence and income generation.

- **Livestock farming/herding/pastoralism:** This refers to a household where livestock farming/herding is its major means of subsistence & income generation.

- **Off Farm Income** This refers to cash generated from activities other than from the households holding. This can be from permanent employment (eg government/other), temporary employment/labouring and includes cash generated from working on other farmers farms.

-**Remittances:** Assistance from family members who are not currently part of the household, or from a relative or family friend. This assistance is usually in the form of cash but it can also be in-kind (eg food, clothes, building material, farm tools, etc). The money is a gift and is not paid back.

-**Fishing/hunting and gathering** The use of non farmed resources for food eg fishing, hunting wildlife and gathering mushrooms, berries, wild honey roots from uncultivated land.

Procedures for Questions:**Q 2.1 Type of agriculture household/holding**

1. Using the options under the question classify the type of agriculture hh/holding

Note: If the hh had 1 acre of crops and raised 40 chickens during 2002/03 it is classified as '**Crops only**' as the number of chickens do not qualify the hh as keeping livestock.

Q 2.2 Important hh livelihood activities /source of income

1. Read the list in column 1 to the respondent and ask him to rank them in order of importance during the reference year.

2. In column 2 Indicate the importance of each activity by placing '1' against the most important, '2' against the second most important, etc until you reach '7' the least important activity/source of income.

Note: You must attempt to fill in all boxes. Most households will carry out these activities to a greater or lesser degree. You will normally have to probe to get remittances.

If the hh did not undertake an activity during the 2002/2003 agriculture year then mark the appropriate box in column 2 with an 'X'.

3. For each activity/source of income assign a percentage. The enumerator should assist the respondent in assigning the percentage based on the information provided by the farmer.

4. After completing column 3 make sure the percentages add up to 100.

Note: It is not essential to be 100% accurate. This question is just to give the relative importance of the different items in general terms

3.0 HOUSEHOLD INFORMATION

3.1 Give details of personal **particulars** of all household members beginning with the head of the household

S/N	Names of household members	Relation-ship to head	Sex M=1 F=2	Age (if age is above 99 years then write 99)	Survival of Parents		Read & Write	Edu- ca- tion Status	Education Level reached	Invol- vement in farming	Main activity (for aged 5 & above)	Off-farm Income Yes=1 No=2
					Mo- ther	Fa- ther						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
3.1.1	1										
3.1.2											
3.1.3											
3.1.4											
3.1.5											
3.1.6											
3.1.7											
3.1.8											
3.1.9											
3.1.10											
3.1.11											
3.1.12											
3.1.13											
3.1.14											
3.1.15											
3.1.16											

<p>Relation to head (Col 2)</p> <p>Head of household1</p> <p>Spouse2</p> <p>Son/daughter3</p> <p>Father/Mother4</p> <p>Grandson/granddaughter .5</p> <p>Other Relative6</p> <p>Others8</p>	<p>Education Status (Col 8)</p> <p>Attending School1</p> <p>Completed2</p> <p>Never attended School3</p>	<p>Involvement in farming activities (Col 10)</p> <p>Works full time on farm ...1</p> <p>Works part-time on farm 2</p> <p>Rarely works on farm3</p> <p>Never works on farm.....4</p>	<p>Main activity (Col 11)</p> <p>Crop Farming01</p> <p>Livestock Keeping/Herding..02</p> <p>Livestock Pastoralism.....03</p> <p>Fishing04</p> <p>Paid employment:</p> <p>- Government/parastatal05</p> <p>- Private- NGO/mission/etc .06</p> <p>Self employed (non farming)</p> <p>- with employees07</p> <p>- without employees08</p> <p>Unpaid family helper (non agriculture)09</p> <p>Not working & available.....10</p> <p>Not working & unavailable...11</p> <p>Housemaker/housewife12</p> <p>Student13</p> <p>Unable to work /too old/ Retired/sick/disabled).....14</p> <p>Other98</p>																										
<p>Survival of Parents (Col 5 & 6)</p> <p>Yes1</p> <p>No2</p> <p>Don't know3</p>	<p>Education Level Reached (Col 9)</p> <table border="0"> <tr> <td>Primary Education</td> <td>Secondary Education</td> </tr> <tr> <td>Not of school ageNA</td> <td>Form one11</td> </tr> <tr> <td>Under Standard One00</td> <td>Form two12</td> </tr> <tr> <td>Standard One01</td> <td>Form three13</td> </tr> <tr> <td>Standard Two02</td> <td>Form four14</td> </tr> <tr> <td>Standard Three03</td> <td>Form five15</td> </tr> <tr> <td>Standard Four04</td> <td>Form six16</td> </tr> <tr> <td>Standard Five05</td> <td>Training after Secondary Education17</td> </tr> <tr> <td>Standard Six06</td> <td>University & other tertiary Education18</td> </tr> <tr> <td>Standard Seven07</td> <td>Adult Education19</td> </tr> <tr> <td>Standard Eight08</td> <td>Not applicable99</td> </tr> <tr> <td>Training after Primary Education09</td> <td></td> </tr> <tr> <td>Pre Form One10</td> <td></td> </tr> </table>		Primary Education	Secondary Education	Not of school ageNA	Form one11	Under Standard One00	Form two12	Standard One01	Form three13	Standard Two02	Form four14	Standard Three03	Form five15	Standard Four04	Form six16	Standard Five05	Training after Secondary Education17	Standard Six06	University & other tertiary Education18	Standard Seven07	Adult Education19	Standard Eight08	Not applicable99	Training after Primary Education09		Pre Form One10		
Primary Education	Secondary Education																												
Not of school ageNA	Form one11																												
Under Standard One00	Form two12																												
Standard One01	Form three13																												
Standard Two02	Form four14																												
Standard Three03	Form five15																												
Standard Four04	Form six16																												
Standard Five05	Training after Secondary Education17																												
Standard Six06	University & other tertiary Education18																												
Standard Seven07	Adult Education19																												
Standard Eight08	Not applicable99																												
Training after Primary Education09																													
Pre Form One10																													
<p>Read & Write (Col 7)</p> <p>Swahili1</p> <p>English2</p> <p>Swahili & English3</p> <p>Any other language4</p> <p>Don't Read/ Write5</p>																													

Definition and working page for page 2**Question Specific Definitions:****Relation to head (Col 2):**

- **Household Head:** A person who is acknowledged by all other members of the household either by virtue of their age or standing as the household head.

Read and Write (Col 7):

- **Any other language:** Must be a written language.

For someone who can read and write in Swahili and any other language apart from English, the correct code is 1. For one who can read and write in English and any other language apart from Swahili the correct code is 2. Code 4 should only be used for another language but not English or Swahili

Education Level Reached (Col 9):

Indicate the highest level only. For those still attending school fill in the last year reached before the survey period. For example if a hh member is currently in standard 7 this year his highest grade reached is standard 6

Main Activity (Col 11):

- **Crop farming:** The persons main activity is crop production. This can be annual crops, vegetables, permanent crops or tree farming.

- **Livestock farming/herding:** The persons main activity is livestock farming/herding. The livestock can be herded in search for areas of pasture, but the core household unit always remains in the same place and the herder is rarely away from this place for long periods at a time. This category also includes fish farming but not fishing.

- **Livestock pastoralism:** The persons main activity is in moving livestock from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they may have no permanent place of residence.

- **Paid employment** - In full time employment earning a cash income

- Government/Parastatal - In full time employment for a government Ministry, Department or Board that is controlled by the Government
- Private/NGO/Mission/etc - employed by Non public/government organisation

- **Self employee** - works for own business for cash income

- With employees - Works for own business for cash and employs other workers

- Without employees - Works for own business for cash but does not employ other workers

- **Not working but available to work** - No productive activity but would like to have one.

- **Not working & nor available for work** - No productive activity and does not want to have one.

- **Unable to work** too old, too young, retired, disabled, etc

Off-farm Income (Col 12) - Income made from activities NOT on the HH's farming activities. This can be any off farm income generation activity and includes working for cash on other peoples farms.

Indicate whether each member was involved in an off farm income generating activity during 2002/03

Overview to section 3.0**Section 3.0 - Preliminary note**

1. Make sure that you define the hh properly to ensure that all the members of the hh are included. Make sure you stress that the hh is not just the hh heads direct family and that it includes other people living and eating together with the family.

2. If you notice that his house is large or you see many people around his house and he has only given you small number of hh members enquire further until you are sure that you have captured all the hh members.

Procedures for questions**Section 3.0 - Household Information**

1. For each household member complete columns 1, 2 & 3.

2. After completing columns 1, 2 & 3 for each household member go back to the first household member and complete the remaining columns for that member.

3. Repeat step 2 for the rest of the household members

IMPORTANT NOTE:

Cross check responses in columns 11 and 12 with section 2 especially in relation to:

off-farm income - if a hh member was involved in off farm income then there should be a response in question 2.2.4 and vice versa.

4.0 LAND ACCESS/OWNERSHIP/TENURE			
4.1 Details of area "owned" by the household in the 2002/03 agricultural year. Give area reported by the respondent in "acres".		Area in Acres	
4.1.1	Area Leased/Certificate of ownership	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	4.2 Was all land available to the hh used during 2002/03 (Yes=1, No=2) <input type="checkbox"/>
4.1.2	Area owned under Customary Law	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
4.1.3	Area Bought from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	4.3 Do you consider that you have sufficient land for the hh (Yes=1, No=2) <input type="checkbox"/>
4.1.4	Area Rented from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
4.1.5	Area Borrowed from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	4.4 Do any female members of the hh own or have customary right to land (Yes=1, No=2) <input type="checkbox"/>
4.1.6	Area Share -cropped from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
4.1.7	Area under Other forms of tenure	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
Total area		<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	

5.0 LAND USE			
5.1 Area operated by household under different forms of land use during 2002/03 agriculture year. Give area reported by the respondent in "acres".		Area in Acres	
			Calculation area
5.1.1	Area under Temporary Mono-crops	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.2	Area under Temporary Mixed crops (eg Maize & beans)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.3	Area under Permanent Mono-crops	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.4	Area under Permanent Mixed crops (eg bananas, coffee & trees)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.5	Area under Permanent/temporary mix (eg bananas & maize)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.6	Area under Pasture	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.7	Area under Fallow	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.8	Area under Natural Bush	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.9	Area under Planted Trees	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.10	Area Rented to others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.11	Area Unusable	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.12	Area of Uncultivated Usable land (excluding fallow)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
Total area		<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	

6.0 ACCESS AND USE OF RESOURCES

6.1 In the following table indicate the distance to the different fields used by the household

S/N	Field Number	Distance (in kilometres) from field to:			Distance codes
		Homestead	Nearest road	Nearest Market	
6.1.1	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<i>less than 100m1 between 2 and 3km6 between 100 and 300m ..2 between 3 and 5km7 between 300 and 500m ..3 between 5 and 10 km ..8 between 500 and 1km....4 Over 10 km9 between 1 and 2km5</i>
6.1.2	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	
6.1.3	3	<input type="text"/>	<input type="text"/>	<input type="text"/>	

6.2 In the following table indicate the distance and use of the following communal resources

S/N	Communal Resource	Distance to resource (km)		Main hh use	Instructions for distance to resource (Col 2 and 3): If under 1km, write 0 If above 1km round to whole numbers eg 1.5km= 2km, 1.25km= 1km
		dry season	wet season		
	(1)	(2)	(3)	(4)	
6.2.1	Water for humans	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	Main hh use (Col 4) Home or farm Consumption/utilisation.....1 Sold to Neighbours.....2 Sold to trader on the farm.....3 Sold to village market4 Sold to local wholesale market.....5 Sold to major wholesale market6 Not used by household.....7 Not available8
6.2.2	Water for livestock	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.3	Communal Grazing	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.4	Communal Firewood	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.5	Wood for Charcoal	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.6	Building poles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.7	Forest for bees (honey)	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.8	Hunting (animal products)	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.9	Fishing (Fish)	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	

Definition and working page for page 3

Question Specific Definitions

Section 4.1 - Land Access/Ownership

Lease/Certificate of Ownership Area under lease/certificate of ownership refers to the area for which the household possesses a government issued leasehold title or certificate of ownership. The land will normally be officially surveyed and boundaries marked. This includes leased land bought from others where the lease/certificate of ownership has been transferred.

Customary Law: This refers to the land which the hh does not have an official government title to but its right of use is granted by the traditional leaders. This user-right agreement does not have to be granted directly by the village leaders as right of access may be passed on through heredity.

Bought: This refers to the area of customary land that has been bought from others. This land does not have an official title and therefore is not leasehold.

Rented from others: Land rented from others for Cash or for a fixed amount in crop produce (eg fixed number of bags at harvest).

Borrowed: Use granted by land owner free of charge. Land owner can either be a lease holder or has right of access through customary law.

Share Cropping: where the hh is permitted to use land which is then paid for from a percentage of the harvested crop.

Section 5.0 Land Use

- **Temporary crops:** are sown and harvested during the same agricultural year

- **Permanent crops:** are sown or planted once and then , they occupy the land for some years and need not to be replanted after each annual harvest. Permanent crops are mainly trees (e.g., apples) but also bushes and shrubs (e.g., berries), palms (e.g., dates), vines (e.g., grapes), herbaceous stems (e.g., bananas) and stemless plants (e.g., pineapples).

- **Mixed Crops:** This is a mixture of two or more crops planted together and mixed in the same plot/field. The two crops can either be randomly planted together or they can be planted in a particular pattern eg intercropping (1 row of maize and 1 row of beans). A field that has been divided into plots for different crops is not mixed. This is further subdivided into:

Permanent Mixed -two or more permanent crops grown together,
Permanent/Temporary Mix - permanent crop and annual crop together,
Temporary Mixed - two or more temporary, annual crops grown together.

- **Pasture Land:** This is an area of owned/allocated land which is set aside for livestock grazing. It can be improved pasture where the farmer has planted grass, applied fertilized or applied other production increasing technologies to improve the grazing. Or it can be rough pasture.

- **Fallow:** This is the area of land that is normally used for crop production, but is not used for crop production during a year or a number of years. This is normally to allow for self generation of fertility/soil structure and is often an integral part of the crop rotation system.

- **Natural Bush:** Land which is considered productive but is not under cultivation or used extensively for livestock production and has naturally growing shrubs and trees.

- **Planted trees:** Land which is used for planting trees for poles or timber

- **Unusable:** Land that is known to be non-productive for agriculture purposes

Uncultivated Usable: This is land that was not used for reasons other than fallow. The reasons could be lack of inputs/money/rainfall/etc

Distance to fields (Q6.1):

-**fields** A field is a contiguous piece of land holding which the farmer considers as a single entity. The field may be divided into plots for growing different crops. A holding may consist of one or more fields in different localities.

Use of Communal Resources (Q6.2):

-**Communal resources** - refers to the place on which all individual households can have access to. It is not individually owned or controlled by one hh.

NOTE: The listed resources refers to communal resources and not those individually owned or part shared. The resource has to be freely accessible to the whole village

Overview to section 4

Section 4.0 - Preliminary note Land Access/ Ownership

Access/Ownership refers to the area utilized by the members of the household. This does not include communal land where the resources are shared between households. It does include official communal land that the hh has sole access to eg a plot for crop farming in the communal area.

Procedures for Questions

Section 4.0 - Land Ownership

1. Ask the respondent if he knows the total area of land the household has sole access to. If he knows make a note in the calculation space
2. Ask the respondent the area of the different land ownership categories the household has sole access to (Q4.1.1 to 4.1.7) and record in the appropriate spaces.
3. Add up the area of the different categories of land and compare it with the total area obtained in step 1 (if the respondent provided the information).
4. If the total area is different find out which one is correct and make amendments where appropriate.

Section 5.0 - Land Use

1. Ask the respondent the area of the different landuse categories the household has sole access to (Q5.1.1 to 5.1.12) and record in the appropriate spaces.
2. Add up the area of the different categories of land and compare it with the total area obtained in section 4.0. The total area should be the same.
3. If the total area is different find out which one is correct and make amendments where appropriate.

Section 6.2 Communal resources

Note: the code "Not available" means that the resource does not exist. The code "Not Used" means that the resource does exist but is not used by the hh.

7.0 ANNUAL CROP AND VEGETABLE PRODUCTION - SHORT RAINY SEASON

7.1.1 Did the hh **plant** any crops during the **Short Rainy** season? (Yes = 1, No=2) If the response is 'NO' give main reason Then go to section 7.2

7.1.2 For each crop planted during 2002/03 **Short Rainy** season provide the following information

Main Reason (Above) No rains.....1 Rains came too late2 Does not plant annual crops3
 No money 4 Don't get Vuli season ..5 Illness/social problems6
 Has irrigation & does not follow season (give annual production in Masika)7

Crop Name	Crop Code	Land Clearing	Soil preparation	Planting		Inputs						Harvesting & Storage				Marketing			
				Planned area (acres)	Actual Planted area (acres)	% improved seed	Irrigation use	Fertiliser use	Herbicide use	Fungicide use	Pesticide use	How harvested	How threshed	Area Harvested (acres)	main product code	Quantity harvested (Kgs)	Quantity Stored (kgs)	Quantity sold (kgs)	Mostly sold to
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
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.....																			
.....																			
.....																			
Total Planned/Planted						Total area harvested													

7.1.3 Main reason for difference between **Area Planned** and **Area Planted** 7.1.4 Main reason for difference between **Area Planted** and **Area Harvested**

<p>Land Clearing (Col 3)</p> <p>Mostly bush clearance ...1 Mostly hand slashing2 Mostly tractor slashing ...3 Mostly burning4 No land clearing5</p>	<p>Improved seed Use (Col 7)</p> <p>all Improved1 approx 3/4 improved2 approx 1/2 improved3 approx 1/4 improved4 less than 1/4 improved ..5 No improved seed used.6</p>	<p>Fertiliser codes (Col 9)</p> <p>Mostly Farm Yard Manure 1 Mostly Compost2 Mostly Inorganic fertiliser ..3 No fertiliser applied4</p>	<p>Threshed/harvested (Col13 & 14)</p> <p>By hand1 By draft animal2 By human powered tool3 By engine driven machine...4 Not applicable9</p>
<p>Soil preparation Method (Col 4)</p> <p>Mostly tractor ploughing .1 Mostly Oxen ploughing ..2 Mostly Hand cultivation ..3</p>	<p>Irrigation Use (Col 8)</p> <p>Used on all crop1 Used on 3/4 of crop2 Used on 1/2 of crop3 Used on 1/4 of crop4 Used on less than 1/45 Not used6</p>	<p>Agrochemical use codes (Col 10,11 &12)</p> <p>Used on all crop1 Used on 3/4 of crop2 Used on 1/2 of crop3 Used on 1/4 of crop4 Used on less than 1/45 Not used6</p>	<p>Main product (Col 16)</p> <p>Dry Grain1 Green cob/green pod2 Green leaves & Stem3 Straw, dry stems etc4 Root, tuber, etc5 Flower eg pyrethrum6 Fruit/bunch7 Other8 Not harvested yet9</p>
<p>Reason for difference between area planned and planted (Q7.1.3)</p> <p>Drought1 Floods2 Access to land preparation tools (Draft animal/tractors).3 Credit4 Access to seeds/planting material5 Access to other inputs6 Other8 Not applicable9</p>		<p>Reason for difference between area planted and harvested (Q7.1.4)</p> <p>Drought1 Rain/flood damage2 Fire damage3 Pest damage4 Animal damage5 Theft6 Illness/social problems7 Other8 Not applicable9</p>	

Definitions and working page for page 4

Working table for the calculation of area occupied by annual crop in a mixture

Crop mixture 1	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .

Total Area of permanent crops in mix 0 .

REMAINING AREA UNDER TEMPORARY CROPS

	crop%	crop area
Temporary/permanent crop name 1		
Temporary/permanent crop name 2		
Temporary/permanent crop name 3		

Total area check . Crop total check .

Working table for the calculation of area occupied by annual crop in a mixture

Crop mixture 2	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .

Total Area of permanent crops in mix 0 .

REMAINING AREA UNDER TEMPORARY CROPS

	crop%	crop area
Temporary/permanent crop name 1		
Temporary/permanent crop name 2		
Temporary/permanent crop name 3		

Total area check . Crop total check .

Land Clearing: Refers to removing trees/bush/grass prior to ploughing
Soil Preparation: Refers to the seedbed preparation (ploughing, harrowing, etc)
Planned Area: Area in **Acres** the household planned to plant before the season started
Actual Planted Area: The area in **Acres** the household was able to plant.
Area Harvested: The area in **Acres** that produced a harvest. This is the same as the area planted minus the area that was destroyed by major flood/pest/ animal/etc damage.

Temporary/Annual Crop:
 Crops which are planted and harvested within a period of 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal basis.

Crop Codes (Cereals /tubers/roots):

Code	Crop
11	Maize
12	Paddy
13	Sorghum
14	Bulrush Millet
15	Finger Millet
16	Wheat
17	Barley
22	Sweet Potatos
23	Irish potatoes
24	Yams
25	Cocoyams
26	Onions
27	Ginger

Vegetable Codes:

Co	Crop
-de	
86	Cabbage
87	Tomatoes
88	Spinach
89	Carrot
90	Chillies
91	Amaranths
92	Pumpkins
93	Cucumber
94	Egg Plant
95	Water Mellon
96	Cauliflower

Crop Codes Legumes Oil & fruit:

Code	Crop
31	Beans
32	Cowpeas
33	Green gram
35	Chick peas
36	Bambara nuts
37	Field peas
41	Sunflower
42	Simsim
43	Groundnut
47	Soyabeans
48	Caster seed

Cash Crop Codes:

Code	Crop
50	Cotton
51	Tobacco
53	Pyrethrum
62	Jute
19	Seaweed

Instructions for calculating the area of mixed crops in a mixture.

- A. If the mixed crop is mixed annual only enter the total area of the field in the REMAINING AREA UNDER TEMPORARY CROPS. and goto step 1 of these instructions.
 - B. If the mixed crop is mixed permanent and annual try to get the % occupied by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annual crops in the mix, Step C
 - C. Number of trees method to calculate annual crop areas in a peranent-annual crop mix/
 - (i) list each of the permanent crops in column b and enter the ground area per acre for each permanent crop (from instructions for page 6) in column 'd'.
 - (ii) obtain the number of permanent trees in the mix from the respondent and enter the number in column 'e'.
 - (iii) calculate the area occupied by each crop by multiplying column 'd' with column 'e' and sum these to obtain the total area of permanent crops in the mix.
 - (iv) subtract the total area of permanent crops in the mix from the total area of mix and enter the result in the total area under temporary crops.
 - (v) proceed to step 1 to calculate the area under each temporary crop.
1. Enter the name of each annual crop in the mix & estimate the percentage of each crop.
 2. Using the percentages for each crop calculate the area of each crop from the REMAINING AREA UNDER TEMPORARY CROPS.
 3. After completing this exercise for all fields, sum the area of each crop in the mix plus any monocrops and enter totals in section 7.1 col 6.
 4. Obtain an estimate of the planned area for each crop and enter it in column 5
 5. If the area harvested is different to the area planted estimate the harvest area
 6. Once the quantity harvested is obtained calculate the Yield (Metric tonnes/acre) & compare the figure with the norms given in the crop codes box. If it is excessively different check the area and the amount harvested.

7.2 ANNUAL CROP AND VEGETABLE PRODUCTION - LONG RAINY SEASON

7.2.1 Did the hh plant any crops during the LONG RAINY season? (Yes=1 No=2)

If the response is 'NO' give main reason

Then go to section 7.3

Main Reason (Above) No rains....1 Rains came too late2 Does not plant annual crops3
No money 4 Illness/social problems ..5

7.2.2 For each crop planted during 2002/03 Long Rainy season provide the following information

Crop Name	Crop Code	Land Clearing	Soil preparation	Planting		Inputs						How harvested	How threshed	Harvesting & Storage			Marketing		
				Planned area (acres)	Actual Planted area (acres)	% improved seed	Irrigation use	Fertiliser use	Herbicide use	Fungicide use	Pesticide use			Area Harvested (acres)	main product code	Quantity harvested (Kgs)	Quantity Stored (Kgs)	Quantity sold (kgs)	mostly sold to
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
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.....																			
Total Planned/Planted						Total area harvested													

7.2.3 Main reason for difference between Area Planned and Area Planted

7.2.4 Main reason for difference between Area Planted and Area Harvested

<p>Land Clearing (Col 3) Mostly bush clearance ...1 Mostly hand slashing2 Mostly tractor slashing ...3 Mostly burning4 No land clearing5</p>	<p>Improved seed Use (Col 7) all Improved1 approx 3/4 improved....2 approx 1/2 improved....3 approx 1/4 improved....4 less than 1/4 improved ..5 No improved seed used.6</p>	<p>Fertiliser codes (Col 9) Mostly Farm Yard Manure 1 Mostly Compost2 Mostly Inorganic fertiliser ..3 No fertiliser applied4</p>	<p>Threshed/harvested (Col13 & 14) By hand1 By draft animal2 By human powered tool.....3 By engine driven machine...4 Not applicable9</p>	<p>Mostly sold to (Col 20) Neighbour.....01 Local market/trade store02 Secondary Market...03 Tertiary Market04 Marketing Coop ...05 Farmer Association06 Largescale farm ...07 Trader at Farm08 Contract Partner ...09 Did not sell10 Other98</p>	<p>Reason for difference between area planned and planted (Q7.2.3) Drought1 Floods2 Access to land preparation tools (Draft animal/tractors).3 Credit4 Access to seeds/planting material.....5 Access to other inputs6 Other8 Not applicable9</p>	<p>Reason for difference between area planted and harvested (Q7.2.4) Drought1 Rain/flood damage2 Fire damage3 Pest damage4 Animal damage5 Theft6 Illness/social problems7 Other8 Not applicable.....9</p>
<p>Soil preparation Method (Col 4) Mostly tractor ploughing .1 Mostly Oxen ploughing ..2 Mostly Hand cultivation ...3</p>	<p>Irrigation Use (Col 8) Used on all crop1 Used on 3/4 crop2 Used on 1/2 crop3 Used on 1/4 of crop.....4 Used on less than 1/4 ...5 Not used6</p>	<p>Agrochemical use codes (Col 10,11 &12) Used on all crop1 Used on 3/4 of crop2 Used on half of crop3 Used on 1/4 of crop4 Used on less than 1/45 Not used6</p>	<p>Main product (Col 16) Dry Grain1 Green cob/green pod.....2 Green leaves & Stem.....3 Straw, dry stems etc4 Root, tuber, etc5 Flower eg pyrethrum6 Fruit/bunch.....7 Others8 Not harvested yet9</p>			

Definitions and working page for page 5

Working table for the calculation of area occupied by annual crop in a mixture

Crop mixture 1	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
				Temp crop%	Temp crop area
Permanent/Temporary crop name 1					
Permanent/Temporary crop name 2					
Permanent/Temporary crop name 3					
Total area check				Temporary crop total check	

Crop mixture 2	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
				Temp crop%	Temp crop area
Temporary/permanent crop name 1					
Temporary/permanent crop name 2					
Temporary/permanent crop name 3					
Total area check				Temporary crop total check	

Land Clearing: Refers to removing trees/bush/grass prior to ploughing
Soil Preparation: Refers to the seedbed preparation (ploughing, harrowing, etc)
Planned Area: Area in **Acres** the household planned to plant before the season started
Actual Planted Area: The area in **Acres** the household was able to plant.
Area Harvested: The area in **Acres** that the household got most of its production from. This is the same as the area planted minus the area that was destroyed by major flood/pest/ animal/etc damage

Temporary/Annual Crop: Crops which are planted and harvested within a period of 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal basis.	Crop Codes (Cereals /tubers/roots): Code Crop 11 Maize 12 Paddy 13 Sorghum 14 Bulrush Millet 15 Finger Millet 16 Wheat 17 Barley 22 Sweet Potatos 23 Irish potatos 24 Yams 25 Cocoyams 26 Onions 27 Ginger	Vegetable Codes: Code Crop 27 Ginger 86 Cabbage 87 Tomatoes 88 Spinach 89 Carrot 90 Chillies 91 Amaranths 92 Pumpkins 93 Cucumber 94 Egg Plant 95 Water Mellon 96 Cauliflower 20 Garlic	Crop Codes Legumes Oil & fruit: Code Crop 31 Beans 32 Cowpeas 33 Green gram 35 Chick peas 36 Bambara nuts 37 Field peas 41 Sunflower 42 Simsim 43 Groundnut 47 Soyabeans 48 Caster seed
	Cash Crop Codes: Code Crop 50 Cotton 51 Tobacco 53 Pyrethrum 62 Jute 19 Seaweed		

Instructions for calculating the area of mixed crops in a mixture.

- If the mixed crop is mixed annual only enter the total area of the field in the REMAINING AREA UNDER TEMPORARY CROPS. and goto step 1 of these instructions.
- If the mixed crop is mixed permanent and annual try to get the % occupied by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annual crops in the mix (Step C).
- Number of trees method to calculate annual crop areas in a permanent-annual crop mix
 - list each of the permanent crops in column b and enter the ground area per acre for each permanent crop (from instructions for page 6) in column 'd'.
 - obtain the number of permanent trees in the mix from the respondent and enter the number in column 'e'.
 - calculate the area occupied by each crop by multiplying column 'd' with column 'e' and sum these to obtain the total area of permanent crops in the mix.
 - subtract the total area of permanent crops in the mix from the total area of mix and enter the result in the total area under temporary crops.
 - proceed to step 1 to calculate the area under each temporary crop.

- Enter the name of each annual crop in the mix & estimate the percentage of each crop.
- Using the percentages for each crop calculate the area of each crop from the REMAINING AREA UNDER TEMPORARY CROPS.
- After completing this exercise for all fields, sum the area of each crop in the mix plus any monocrops and enter totals in section 7.1 col 6.
- Obtain an estimate of the planned area for each crop and enter it in column 5
- If the area harvested is different to the area planted estimate the harvest area
- Once the quantity harvested is obtained calculate the Yield (Metric tonnes/acre) & compare the figure with the norms given in the crop codes box. If it is excessively different check the area and the amount harvested.

7.3 PERMANENT/PERENNIAL CROPS AND FRUIT TREE PRODUCTION

7.3.1 Does your household have any permanent/perennial crops or fruit trees (Yes=1, No=2) 1

7.3.2 For each of the permanent crops and fruit trees owned by the household provide the following information

		Size of production unit			Inputs					Harvesting & Storage					Marketing		
Perm- anent Crop Name	Perman- ent crop/ fruit tree crop Code	MONOCROP	MIXED CROP		Irrig- -at -ion use	Fert- -ilis- -er use	Herb- -ic -ide use	Fun- -gic -ide use	Pest -ici- -de use	Area Harvested (acres)	Number of mature plants	main prod- -uct code	Quantity harvested (kgs)	If no harvest give re- -ason	Quantity Stored (Kgs)	Quantity sold (kgs)	mostly sold to
		Area of Plants/ trees/Bushes in MONO CROP (acres)	Area covered by Permanent Crop in a MIXED CROP (acre)	Number of permanent Plants/trees in a MIXED CROP													
.....																	
.....																	
.....																	
.....																	
.....																	
.....																	
.....																	
.....																	
.....																	
.....																	
.....																	

<p>Irrigation Use (Col 6)</p> <p>Used on all crop1</p> <p>Used on most crop2</p> <p>Used on half crop3</p> <p>Used on small amount of crop.4</p> <p>Not used on crop5</p>	<p>Fertiliser codes (Col 7)</p> <p>Mostly Farm Yard Manure.....1</p> <p>Mostly Compost2</p> <p>Mostly Inorganic fertiliser3</p> <p>No fertiliser applied4</p>	<p>Agrochemical use codes (Col 8, 9 & 10)</p> <p>Used on all crop1</p> <p>Used on 3/4 of crop2</p> <p>Used on 1/2. of crop3</p> <p>Used on 1/4 of crop4</p> <p>less than 1/4 of crop5</p> <p>Not used6</p>	<p>Main product (Col 13)</p> <p>Dry Grain.....1</p> <p>Green cob/green pod..2</p> <p>Green leaves & Stem..3</p> <p>Straw, dry stems etc ...4</p> <p>Root, tuber, etc5</p> <p>Flower6</p> <p>Fruit/bunch.....7</p> <p>Other8</p> <p>Not harvested yet9</p>	<p>Main Reason for no harvest(Col 15)</p> <p>Crop not harvested yet1</p> <p>Drought2</p> <p>Rain/flood damage3</p> <p>Fire damage4</p> <p>Pest damage5</p> <p>Animal damage6</p> <p>Theft7</p> <p>Other8</p> <p>Not applicable9</p>	<p>Mostly sold to (Col 18)</p> <p>Neighbour.....01</p> <p>Local market/trade store....02</p> <p>Secondary Market03</p> <p>Tertiary Market04</p> <p>Marketing Coop05</p> <p>Farmer Association06</p> <p>Largescale farm07</p> <p>Trader at farm08</p> <p>Contract Partner09</p> <p>Did not sell10</p> <p>Other98</p>
--	--	---	---	--	--

Definitions and working page for page 6

Permanent Crop:

Permanent crops: are sown or planted once and then , they occupy the land for some years and need not to be replanted after each annual harvest. Permanent crops are mainly trees (e.g., apples) but also bushes and shrubs (e.g., berries), palms (e.g., dates), vines (e.g., grapes), herbaceous stems (e.g., bananas) and stemless plants (e.g., pineapples).

Total number of plants:

This includes both mature harvestable plants and immature non harvestable plants.

Number of mature plants: This is the number of plants which bared harvest.

Instructions for Permanent crop mono stands and mixtures

- A.** For fields that are **monocrop permanent**, **ONLY** enter the **area of plants in column 3**.
- B.** For fields that are **mixed permanent** calculate the area of each crop based on the % **occupied by each crop method** (NOT using the number of trees method) and **ONLY** enter the area in **column 4**
- C.** For fields that are **mixed permanent/annual** either:
- **ONLY** enter the **area in column 4** if the area of the permanent crop was based on the % **occupied by each crop method**
- OR**
- **ONLY** enter the **number of trees in column 5** if the number of permanent crop plants was provided

Permanent crops (oils):

Code	Crop	Ground area/plant
44	Palm Oil	0.00049
45	Coconut	0.00037
46	Cashewnut	0.00062

Permanent (Cash crops)

Code	Crop	Ground area/plant
53	Sisal	0.00012
54	Coffee	0.00049
55	Tea	0.00037
56	Cocoa	0.00049
57	Rubber	0.00099
58	Wattle	0.00099
59	Kapok	0.00124
60	Sugar Cane	0.00012
61	Cardamom	0.00049
63	Tamarin	0.00099
64	Cinamon	0.00124
65	Nutmeg	0.00099
66	Clove	0.00074
18	Black Pepper	0.00037
34	Pigeon pea	0.00025
21	Cassava	0.00019
75	Pineapple	0.00006

Permanent Crops:

Code	Crop	Ground area/plant
70	Passion Fruit	0.00074
71	Banana	0.00037
72	Avocado	0.00099
73	Mango	0.00099
74	Papaw	0.00037
76	Orange	0.00074
77	Grapefruit	0.00074
78	Grapes	0.00012
79	Mandarin	0.00074
80	Guava	0.00074
81	Plums	0.00074
82	Apples	0.00074
83	Pears	0.00074
84	Peaches	0.00074
85	Lime/lemon	0.00074
68	Pomelo	0.00099
69	Jack fruit	0.00074
97	Durian	0.00074
98	Bilimbi	0.00074
99	Rambutan	0.00074
67	Bread fruit	0.00099
38	Malay apple	0.00074
39	Star fruit	0.00074

Working Area/calculation space

7.4 Main use of Secondary Products

7.5 Did you use **Secondary Products** from any of your crops during the 2002/03 year. (Yes=1, No=2)

If the response is 'NO' go to section 8.0

7.6 List the **main crops** with **secondary products** and provide the following details:

S/N	Crop name	Crop Code	Secondary product	Prod code	Used for	Unit	Total no of Units	No of units sold	Total value of sold units (Tsh.)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7.6.1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7.6.6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Main product (Col 4)

Green leaves & Stem...1 Flower ...4
 Straw, dry stems etc ...2 Fruit5
 Root, tuber, etc3 Other8

Mainly used for (Col 5)

Feeding to livestock ..1 Consumed by hh4
 Building material2 Sold5
 Fuel for cooking3 Did not use.....6

Unit (Col 6)

Loose Bundle/bunch1 kg5
 Compressed bunch/Bail...2 Stems6
 Tin3 Sack7
 Bucket4 Other8

8.0 AGROPROCESSING AND BY-PRODUCTS

8.1 Did the household **process** any of the products harvested on the farm during 2002/03 (Yes=1, No=2)

If the response is 'NO' go to section 9.0

8.2 List the **main crops processed** and provide the following details:

S/N	Crop name	Crop Code	Proc-ess -ed	Main Prod -uct code	Used for	Unit	Quantity of main product	Quantity Sold	Whe -re sold	By-Prod -uct code	Used for	Unit	Quantity of by-product	Quan -tity Sold
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
8.2.1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.2.6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Processed (Col 3)

On farm by hand1
 On farm by machine2
 By neighbours machine...3
 By farmers association ...4
 By Cooperative union5
 By trader6
 On Large scale farm7
 By factory9
 Other8

Main product code (Col 4)

Flour/meal.....1
 Grain2
 Oil3
 Juice4
 Fiber.....5
 Pulp6
 Sheet7
 Other8

Used for (Col 5 & 11)

Household/human consumption ..1
 Fuel for cooking2
 Sale3
 Animal consumption4
 Did not use5
 Other8

Where sold (Col 9)

Neighbour.....1
 Local market/trade store2
 Secondary Market3
 Marketing Coop4
 Farmer Association5
 Largescale farm6
 Trader at farm7
 Did not sell9
 Other8

By-product code (Col 10)

Bran01
 Cake02
 Husk03
 Juice04
 Fiber05
 Pulp06
 Oil07
 Shell08
 Other98

Unit (Col 6 & 12)

Loose bundle/bunch1
 Compressed bunch/bail...2
 Tin3
 Bucket4
 kg5
 litre6
 Other8

Definition and working page for page 7					
Temporary/annual crop codes for section 7.4 col 2				General Definition for Section 7.4	
Crop Code	Crop Name	Secondary Product Question 7.4	Agroprocessing & bi-products		
			Main Products (Section 8.0)	Bi-product (Sect 8.0)	
				1	2
11	Maize	Stems/straw	Flour	Bran	
12	Paddy	Stems/straw	polished rice grain	husk	
13	Sorghum	Stems/straw	flour		
14	Bulrush Millet	Stems/straw	flour		
15	Finger Millet	Stems/straw	flour		
16	Wheat	Stems/straw	flour	Bran	
17	Barley	Stems/straw	flour	Bran	
21	Cassava	Leaves/stems	flour		
22	Sweet Potatoes	Leaves			
23	Irish potatoes				
24	Yams				
25	Cocoyams				
26	Onions				
27	Ginger				
31	Beans	straw/stems			
32	Cowpeas	straw			
33	Green gram	straw			
34	Pigeon peas	stems			
35	Chick peas	straw			
36	Bambara nuts	straw/stems	oil	cake	
41	Sunflower	Stems	oil	Cake	
42	Simsim	straw	oil	Cake	
43	Groundnut	straw	oil	Cake	
47	Soya beans	straw	oil	Cake	
48	Caster seed	straw	oil	Cake	
75	Pineapple		Juice		
50	Cotton	straw	fibre/seed	oil	cake
51	Tobacco				
53	Pyrethrum	straw	insecticide		
62	Jute		fibre		
86	Cabbage				
87	Tomatoes				
88	Spinach				
89	Carrot				
90	Chillies		dried powder		
91	Amaranths				
92	Pumpkins	leaves			
93	Cucumber				
94	Egg Plant				
95	Water Mellon				
96	Cauliflower				
44	Oil Palm	leaves	oil outer	oil inner	cake
45	Coconut	leaves/husk	milk		
46	Cashewnut	Fruit	fruit juice	shell liquid	
52	Sisal	stems	fibre	oil	
54	Coffee	stems	beans	husks	
55	Tea	stems			
56	Cocoa	stems	cocoa	cocoa butter	
57	Rubber	stems			
58	Wattle	stems			
59	Kapok	stems			
60	Sugar Cane		sugar/juice	molasses	ethanol
61	Cardamom				
71	Banana	leaves/stems	juice		
72	Avocado	stems			
73	Mango	stems	Juice		
74	Paw paw		Juice		
76	Orange	stems	Juice		
77	Grape fruit	stems	Juice		
78	Grapes	stems	Juice		
79	Mandarin	stems	Juice		
80	Guava	stems			
81	Plums	stems			
82	Apples	stems			
83	Pears	stems			
84	Pitches	stems			
85	Lime/Lemon	stems	juice		

Secondary Products: Second most important product from a crop. Eg a household may consider the grain from maize as the primary product and the stems/straw as the secondary product.

Note: Secondary products are NOT the same as bi-products. By-products are the result of a processing activity and are dealt with in section 8.0.

Procedures for Questions

Q 7.6 Details of Secondary Products:

- From the list of crops in Q 7.1.2, 7.2.2 & 7.3.2, ask the respondent if the hh used any secondary products. List the crop names and codes in column 1 and 2 for those crops that the hh used secondary products.
- For the listed crops give details of the secondary products used.
- If no units were sold, enter "0" in columns 8 & 9.

Q 8.0 Agroprocessing & bi-products:

- From the list of crops in Q 7.1.2, 7.2.2 & 7.3.2, ask the respondent if the hh processed any of these crops during the 2002/03 agriculture year. List the crop names and codes in column 1 and 2 for those crops that were processed by the hh.
- For the listed crops give details of the secondary crops used.
- If no main product or bi-product was sold enter "0" in columns 8 & 14.
- If no bi-product was produced enter "0" in columns 10, 11, 12, 13 & 14.

Question Specific Definitions

Agroprocessing and bi-products (Q 8.2)
(Note: Agroprocessing refers to the processing of crops for hh utilisation and for sale)

Main Product (Col 5):

Main Product after processing. Eg for Paddy it may be the polished grain. For Maize it may be flour.

Bi-Product code (Col 11): is the secondary residue after processing, eg for rice it may be the husk. for maize it may be the bran.

Mainly used for (Col 5 & 11):

- Consumed by household can mean eaten or utilised in another way (eg by animals) by the hh.

9.0 CROP STORAGE							
9.1	Did the household store any crops during the 2002/03 agriculture year? (Yes =1, No=2) <input style="float:right;" type="checkbox"/>						
<i>If the response is 'NO' go to section 10.0</i>							
9.2 For each of the listed crops provide the following details on storage							
S/N	Crop Name	Stor	Current	Method	Normal	Main	Estimate
		-ed	Quantity	of	duration	pur	Estimate
		Y=1	Stored	Storage	of	pose	Storage
		No=2	(kg)		storage	loss	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
9.2.1	Maize	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.2	Paddy	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.3	Sorghum/Millet	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.4	Beans, peas, etc	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.5	Wheat	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.6	Coffee	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.7	Cashewnut	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.8	Tobacco	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.9	Cotton	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.10	Groundnuts/bambara	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Main method of Storage (Col 4)

In locally made traditional structure..1
 In Improved locally made structure .2
 In modern store3
 In Sacks/open drum.....4
 In airtight drum5
 Unprotected pile6
 Other8

Duration of Storage (Col 5)

Less than 3 months1
 Between 3 and 6 months2
 Over 6 months3

Main purpose of storage (Col 6)

Food for the household1
 To sell for higher price2
 seed for planting.....3
 Other8

Storage loss (Col 67)

Little or no loss1
 Up to 1/4 loss2
 Between 1/4and 1/2 loss ..3
 Over 1/2 loss4

10.0 MARKETING							
10.1	Did the household **sell any crops** from the 2002/03 agriculture year? (Yes=1, No=2)						
(If the response is 'YES' or 'NO' go to section 10.2)							
10.2 For **each of the following crops** what was the main **marketing problem** faced by the household during 02/03							

	Crop	Main problem		Crop	Main problem
	(1)	(2)		(1)	(2)
10.2.1	Maize	<input type="checkbox"/>	10.2.9	Vegetables	<input type="checkbox"/>
10.2.2	Rice	<input type="checkbox"/>	10.2.10	Tree Fruits	<input type="checkbox"/>
10.2.3	Sorghum/millet	<input type="checkbox"/>	10.2.11	Cashewnut	<input type="checkbox"/>
10.2.4	Wheat	<input type="checkbox"/>	10.2.12	Cotton	<input type="checkbox"/>
10.2.5	Beans, peas etc	<input type="checkbox"/>	10.2.13	Tobacco	<input type="checkbox"/>
10.2.6	Cassava	<input type="checkbox"/>	10.2.14	Groundnuts/bamabara	<input type="checkbox"/>
10.2.7	Bananas	<input type="checkbox"/>	10.2.15	Trees/timber/poles	<input type="checkbox"/>
10.2.8	Coffee	<input type="checkbox"/>	10.2.16	Fish	<input type="checkbox"/>

10.3 From the list of marketing problems below, for all produce rank the five most important problems

	1	2
10.3.1	Biggest problem	<input type="checkbox"/>
10.3.2	2nd problem	<input type="checkbox"/>
10.3.3	3rd problem	<input type="checkbox"/>
10.3.4	4th problem	<input type="checkbox"/>
10.3.5	5th problem	<input type="checkbox"/>

Market problems (Q10.2 & 10.3 (Col 2))

Open market price too low01 Market too far05 Government Regulatory board problems...09
 No transport02 Farmer association problems06 Lack of market Information10
 Transport cost too high03 Cooperative Problems07 Other (specify)98
 No buyer04 Trade Union problems08 Not Applicable99

| 10.4 | What was the main **reason for not selling** crops during 2002/03 year | | | | | | |

Reason for not selling crops (Q10.4)

Price too low1 Farmer association problems4 Government regulatory board problems7
 Production insufficient to sell.....2 Cooperative Problems.....5 Other (specify)8
 Market too far3 Trade Union problems6 Not Applicable9

Definition and working page for page 8**Question Specific definitions (Section 9.0)****Crop Storage, Section 9****Method of Storage (column 4)**

- **Locally made structure:** The structures that have been inherited from their fore fathers
- **Improved locally made structure:** Traditional structures that have been improved using modern technology.
- **Normal duration of storage:** Often there are stored stocks from different seasons and different years. The normal duration refers to the number of months that the most of the crop is stored for.

Marketing problems Q 10.2 and 10.3 col 2:

- **Farmer Association:** A village or community based group of farmers who have formed an organisation to purchase inputs/sell/store their products in order to achieve a better price for their products.
- **Cooperative Union:** Large inter-village /community organisation set up on a district/regional or national basis for providing inputs, marketing and storing farmers products.
- **Government Regulatory board:** Government control body for setting prices and controlling quality of certain agriculture commodities.

Procedures for Questions**Q 9.2 Details of Crop Storage:**

1. For the crops listed indicate if the household stored any during 2002/03 in column 2.
2. Check that the crops correspond to the crop lists in Q 7.1.2, 7.2.2 & 7.3.2. If there is a difference inquire on the reason why. It is possible that a crop was missed during the enumeration of these questions and if so make necessary amendments
3. For the listed crops give details of storage.

Q 10.2 Details on Crop Marketing:

1. For each of the crops listed indicate the main problems in marketing during 2002/03 in column 2.
2. Check if the crops correspond to the crop lists list in Q 7.1.2, 7.2.2 & 7.3.2. If there is a difference inquire on the reason why. It is possible that a crop was missed during the enumeration of these questions and if so make necessary amendments

Q 10.3 Ranking of market problems:

Rank in order of importance the 5 most important marketing problems from the codes in the Market Problems code box.

Working Area/calculation space

11.0 ON-FARM INVESTMENT									
11.1 Does the household practice irrigation (Yes=1, No=2) <input style="float:right" type="checkbox"/>									
<i>If the response is 'NO' go to section 11.3</i>									
S/N	Source of Irrigation water	Method of obtaining water	Method of application	Irrigatable area (acres)	Area of irrigated land this year (acres)				
	(1)	(2)	(3)	(4)	(5)				
11.1.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>				
Source of irrigation water (Col 1) River1 Borehole5 Lake2 Canal6 Dam3 Tap Water7 Well4			Method of obtaining water (Col 2) Gravity1 motor pump4 Hand bucket2 Other8 Hand pump3		Method of application (Col 3) Flood1 Sprinkler2 water hose.....3 Bucket/watering can4				
11.2 Does the household have any erosion control/water harvesting facilities on their land (Yes=1, No=2) <input style="float:right" type="checkbox"/>									
<i>If the response is 'NO' go to section 12.0</i>									
S/N	Type of erosion control/water harvesting structure	Number of structures	Year of construction		Type of erosion control/water harvesting structure	Number of structures	Year of construction		
	(1)	(2)	(3)		(1)	(2)	(3)		
11.2.1	Terraces	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	→	11.2.5	Tree belts	<input type="text"/> <input type="text"/>		
11.2.2	Erosion control bunds	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.6	Water harvesting bunds	<input type="text"/> <input type="text"/>		
11.2.3	Gabions/Sandbags	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.7	Drainage ditches	<input type="text"/> <input type="text"/>		
11.2.4	Vetiver Grass	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.8	Dam	<input type="text"/> <input type="text"/>		
12.0 ACCESS TO FARM INPUTS AND IMPLEMENTS									
12.1 Give details of farm inputs used during the 2002/03 agriculture year									
S/N	Input name	Used Yes=1 No=2	Source	Distance to Source	Source of Finance	Reason for not using	Quality of Input	Plan to use next year Yes =1,No=2	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
12.1.1	Chemical Fertiliser	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.2	Farm Yard Manure	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.3	Compost	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.4	Pesticide/fungicide	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.5	Herbicide	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.6	Improved Seeds	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.7	Other	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Source (Col 3) Cooperative01 Local farmers group02 Local market/Trade Store ...03 Secondary Market04 Development project05 Crop buyers06 Large scale farm07 Locally produced by hh08 Neighbour09 Other (specify)98 Not applicable99		Distance to source (Col 4) Less than 1 Km1 Between 1 and 3km2 between 3 and 10 km...3 Between 10 and 20 km ...4 20km and above5 not applicable9		Source of finance (Col 5) Sale of farm products .1 Other income generating activities ...2 Remittances3 Bank Loan/Credit.....4 produced on farm5 Other8 Not applicable9		Reason for not using (Col 6) Not available1 Price too high2 No money to buy3 Too much labour required..4 Do not know how to use.....5 Input is of no use6 Locally produced by hh7 Other8 Not applicable9		Quality of input (Col 7) Excellent1 Good2 Average3 Poor4 Does not work .5 not applicable...9	

Definition and working page for page 9

Overview of Investment activities (Section 11.0)

Investment activities:

Investment activities refer to medium to long term farm development structures and projects. This can be Irrigation structures, erosion and water harvesting structures or other permanent or semi-permanent investment made on the land that the household owns.

Question Specific Definitions (Q 11.1)

Source of irrigation Water (Col 1): The main source of water from which water is obtained for irrigation.

Method of obtaining water (Col 2): The mechanism by which the water is extracted from the source,

Application Method (Col 3): How the water is applied on the field.
 - Flood - is the application of water down the slope of the land by means of gravity
 - Sprinkler - is the application of pressurised water through pipes. The water passes through a device which sprays the water onto the crop from above.

Irrigatable Area (Col 4): The area the irrigation system is designed to cover in acres.

Area of irrigated land this year (Col 5): Area of land under irrigation during the 2002/03 agric year. This is the physical area and NOT the cumulative area of 2 or more croppings.

Q 11.1 Irrigation

1. If the hh practices irrigation give details on the main source, main method of obtaining and applying water.
2. Cross check column 8, Q 7.1.2, 7.2.2 & 7.3.2 to check if irrigation was used on any crops.

Question Specific Definitions (Q 11.3)

Erosion control/water harvesting structure (Col 1)

Terraces: Are structures constructed on the side of a hill to provide a level ground to plant crops. They are often used to trap water for paddy/lowland rice production.

Erosion Control Bunds: These are banks of earth/stones built perpendicular to the slope to slow down water and prevent erosion. They are different to Terraces in that the soil behind the banks are not level.

Gabions: A gabion is a wire mesh box filled with rocks/stones and used to control or prevent gully erosion

Sandbags Used to prevent or control gully erosion

Tree belts/Wind breaks: A band of trees planted perpendicular to the prevailing wind whose main purpose is to slow down wind speed

Water Harvesting bunds: A bank of earth constructed horizontal to the slope of the land to trap water. They are usually banana shaped.

Dam: A bank of earth/material which traps river water to form a catchment of water behind it.

Q 11.3 erosion control/water harvesting

1. Number of structures refers to the number of working/maintained structures and does not include derelict or irreparable structures.
2. Year of construction refers to the year that the structures were first constructed. It is not the year that the structures were last maintained.

Farm Inputs (Q 12.1.1 to 12.1.7)

Farm yard Manure: An organic fertiliser made on farm composed of animal dung.

Compost: An organic fertiliser made on farm from decomposed plant material

Pesticide: Chemical used to either protect the plant from or kill insects, birds, molluscs, mites, etc attacking the plant

Fungicide: is a chemical that is used to protect the plant from or control a fungal disease.

Herbicide: A chemical used to control weeds.

Q 12.0 Farm Inputs

1. Indicate in column 1 whether each of the inputs are used or not.
2. Complete cols 3, 4, 6, and 7 for inputs that are used and place '9' in column 5 (for not applicable).
3. Complete cols 5 & 7 for inputs not used.

NOTE: Cross check column 6, 7, 8 & 9, Q 7.1.2, 7.2.2 & 7.3.2 to check what inputs were used.

12.2 Give details of farm implements and assets used and owned by the household during 2002/03 agriculture year									
S/N	Equipment/Asset Name	Number		Used in 2002/03 Yes 1, No=2	Source of Equip-ment	Source of Fin-ance	Reason for not using	Plan to use next year Yes=1, No=2	
		Owned	rent-ed						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
12.2.1	Hand Hoe	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.2	Hand Powered Sprayer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.3	Oxen	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.4	Ox Plough	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.5	Ox Seed Planter	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.6	Ox Cart	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.7	Tractor	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.8	Tractor Plough	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.9	Tractor Harrow	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
12.2.10	Shellers/threshers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
		Source of equipment (Col 5) Neighbour.....1 Development project5 Cooperative2 Government6 Local farmers association.....3 Large scale farm7 market/Trade store4 Other (specify)8			Source of finance (Col 6) Sale of farm products1 Other income generating activities .2 Remittances3 Bank Loan4 Credit5 Other8 Not applicable9		Reason for not using (Col 7) Not available1 Price too high2 No money to buy/rent.....3 Too much labour required...4 Equipment/Asset of no use ...5 Other8 Not applicable9		
13.0 USE OF CREDIT FOR AGRICULTURE PURPOSES									
13.1	During the year 2002/03 did any of the hh members borrow money for agriculture (Yes = 1, No = 2) (if the response is 'NO' go to section 13.3)							<input type="text"/>	
13.2 Give details of the credit obtained during the agricultural year 2002/03 (if the credit was provided in kind , for example by the provision of inputs, then estimate the value in 13.2.9)									
	use codes to indicate source	Source "a"		Source "b"		Source "c"			
	Provided to Male = 1, Female 2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
		tick the boxes below to indicate the use of the credit		tick the boxes below to indicate the use of the credit		tick the boxes below to indicate the use of credit			
13.2.1	Labour	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.2	Seeds	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.3	Fertilisers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.4	Agrochemicals	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.5	Tools/equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.6	Irrigation structures	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.7	Livestock	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.8	Other	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.9	Value of Credit (Tsh.)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.10	Value of repayment (Tsh.)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
13.2.11	Period of repayment (months)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Source of credit (Q 13.2-a, b and c) Family, friend or relative...1 Commercial Bank.....2 Cooperative3 Savings & credit Soc4 Trader/trade store5 Private individual6 Religious Organisation/NGO/Project ...7 Other (Specify).....8									
13.3	If the answer to question 13.1 above is 'NO' what is the reason for not using Credit?							<input type="text"/>	
Reason for not using credit (Q13.3) Not needed ...1 Not available ...2 Did not want to go into debt....3 Interest rate/cost too high.....4 Did not know how to get credit....5 Difficult bureaucratic procedure ...6 Credit granted too late ...7 Other (specify) ...8 Dont know about credit9									

Definition and working page for page 10

Question Specific Definitions (Q 12.2)

Farm Implements (Col 1):

Hand powered Sprayer: Knapsack or bicycle pump sprayer

Reason for not using (Col 6): Be careful about using "too much labour required" as this code generally refers to hand hoes only. The codes for this should "**NOT**" be read out to the farmer as a prompt.

Note: If remittance is given as the main source of finance check for a response to remittances in **question 2.2.5**

Question Specific Definitions (Q 13.0)

Section 13.0 Credit for Agriculture Purposes

Credit is defined as finance in the form of cash or in-kind contributions (eg direct provision of inputs, machinery, livestock or other material) for the purpose of crop and livestock production whereby the value of the credit must be paid back to the borrower. The value of repayment may either be with interest or interest free.

Credit may be paid back in the form of cash or agriculture produce.

Section 13.0 Credit for Agriculture Purposes

Value of credit: is the amount in cash received from the borrower. If the credit was paid in-kind, estimate the value of this.

Value of repayment: This is the amount to be repaid to the borrower and includes the principal amount (value of credit) plus any interest repayment. If the credit is paid back in agriculture produce, then the cash value of this must be estimated.

Period of repayment: This is the time in **months** the borrower has given for full repayment.

Procedures for questions

Q 12.0 Farm Inputs

1. Indicate in column 2 and 3 whether each of the implements were used or not.
2. Complete cols 4, 5, 6, and 8 for inputs that are used and place '9' in column 7 (for not applicable).
3. Complete cols 7 & 8 for inputs not used.

Section 13.2 Source of agriculture credit

If the farmer obtained credit from more than one source then use the columns "a", "b" and "c" for the different sources of credit. Start with the main source of credit in column "a".

NOTE: Check for use of inputs in column 7, 8 & 9 of questions 7.1.2, 7.2.2 & 7.3.2.

Working Area/calculation space

14.0 TREE FARMING/AGROFORESTRY										
14.1	Did your household have any Planted Trees on your land during 2002/03 agric year? (Yes =1, No=2) <input type="checkbox"/>									
<i>If the response is 'NO' go to section 14.3</i>										
14.2 Give details of the planted trees you have on your land.										
S/N	Tree Code	Number of trees	Where planted	Main Use	Secondary Use	Number of Plank trees Sold	Number of Pole trees Sold	hh utilised		Total Value (Tsh.)
								Number of Poles	Number of Timber	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
14.2.1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14.2.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14.2.3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14.2.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Where Planted (Col 3)						Use (Col 4 & 5)				
Mostly on field/plot boundaries.....1						Planks/Timber.....1 Shade5				
Mostly scattered in fields2						Poles2 Medicinal.....6				
Mostly in plantation/coppice ...3						Charcoal3 Other8				
						Fuel wood4				
14.3	Does your village have a Community tree planting scheme (Yes=1, No=2) <input type="checkbox"/>									
<i>If the response is 'NO' go to section 15.0</i>										
14.4 Household involvement in community tree planting scheme										
S/N	Distance to community planted forest (Km)	hh Involve-ment	Main purpose	Main use during 2002/03						
	(1)	(2)	(3)	(4)						
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
HH involvement (Col 2)			Main Purpose (Col 3)			Main Use during 02/03(Col 4)				
Only planting1			Erosion control.....1 Environment rehaiblitation ...4			Poles1 Not ready to use5				
Only protection and thinning.....2			Production of poles2 Restoration of wildlife5			Timber logs2 Not allowed to use6				
Only cutting3			production of firewood...3 Other (specify)8			Charcoal3 Other (specify)8				
Most or all activities.....4						Firewood4				

15.0 CROP EXTENSION SERVICES							
15.1	Did your household receive extension advice for crop production during 2002/03 (Yes=1,No=2) <input type="checkbox"/>						
<i>If the response is 'NO' go to section 16.0</i>							
S/N	Extension Provider	Source of extension (Y=1,N=2)	If you pay for extension, what is the cost/yr	Contact farmer /group member (Yes=1,No=2)	No. of visits by extension agency per year	No. of message adopted in the last 3 years	Quality of Service
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
15.1.1	Government extension	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.2	NGO/development project	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.3	Cooperative	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.4	Large Scale farmer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.5	Other.....	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Quality of service (Col 7)							
Very good1 good2 Average.....3 Poor.....4 No Good5							

Definition and working page for page 11

General Definitions for section 14.0

Tree Farming/Agroforestry

This section refers to trees **planted** for wood (firewood, poles, planks, carving, charcoal, medicinal, etc, but **NOT** fruit trees). It does **not** include naturally growing trees on the farm (unless special care has been given to promote their establishment) or trees growing naturally on the communal areas.

Tree farming is the planting of trees on an area of land for which the main purpose is the production and regeneration of trees for wood on that land.

Agroforestry: is the planting of trees on land for the purpose of complementing other farming activities like crop and animal production. For the purpose of this questionnaire Agroforestry trees are trees planted on boundaries and scattered throughout fields. The main productive unit in this case is Crops and Livestock.

Section 14.2 Details of planted trees

1. Enter the tree codes of the main species grown by the hh
2. If no planks or poles are sold enter a "0" in columns 8, & 9.
3. Total value includes both value of hh utilised trees and sold trees.
4. If no trees were utilised by the hh or sold enter "0" in column 10

Question Specific Definitions

Tree farming (Section 14.0)

Pole trees (Col 6): These are young trees which have a maximum diameter of 6 inches at the bottom and are often used for house construction. They are often the thinning harvest after 3 - 5 years.

Plank trees (Col 7): Trees for sawing into timber planks.

Animal shade: Trees grown for the purpose of providing shade to animals.

Community tree planting scheme (Section 14.3)

Community Forest: A forest planted on the communal land which is planted, replanted or spot planted by the members of the village.

Crop Extension Services (Section 15.1)

Contact Farmer: A farmer who is used by the extension agent as a focal point to demonstrate new interventions. The contact farmer then passes on the message to other farmers

Group member: Member of a group under which the contact farmer leads

Adoption: This is the uptake of an intervention for 2 or more years

Section 15.1 Crop Extension Services

1. For each of the extension providers ask if the hh received extension during 2002/2003 agriculture year and indicate in column 2.
2. For each of the providers complete the rest of the columns

Tree Name Guide Col 1

Code	Local Name	Botanical Name	English Name
01		<i>Senna siamea</i>	Cassod tree
02	Msongoma	<i>Gravellia</i>	Silver oak
03	Mbarika	<i>Azelia quanzensis</i>	Pod mahogany
04	Mkeshia	<i>Acacia spp</i>	Umbrella thorn
05	Msindano	<i>Pinus spp</i>	Pine
06	Mkaratusi	<i>Eucalyptus spp</i>	Red River Gum
07		<i>Cyprus spp</i>	Cyprus tree
08	Mtndoo	<i>Calophyllum inophyllum</i>	
09	Mvule	<i>Melicia excelsa</i>	Iroko
10	Mvinji	<i>Casurina equisetifolia</i>	Whistling oak
11	Msaji	<i>Tectona grandis</i>	Teak
12	Mkungu wa kienyeji	<i>Terminalia catapa</i>	Sea almond
13	Mkungu india	<i>Terminilia ivorensis</i>	Black afara
14	Muhumula	<i>Maesopsis berchemoides</i>	
15			

Code	Local Name	Botanical Name	English Name
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

15.2 Crop Extension Messages									
S/N	Extension Message	Received Advice Yes=1 No=2	Adopted Yes=1 No=2	Source of Crop Extension	S/N	Extension Message	Received Advice Yes=1 No=2	Adopted Yes=1 No=2	Source of Crop Extension
	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)
15.2.1	Spacing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.9	Crop Storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.2	Use of agrochemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.10	Vermin control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.3	Erosion control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.11	Agro-processing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.4	Organic fertiliser use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.12	Agro-forestry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.5	Inorganic fertiliser use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.13	Bee Keeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.6	Use of improved seed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.14	Fish Farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.7	Mechanisation/LST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.15	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.8	Irrigation Technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Source of extension (Col 4)
 Government1 NGO/Dev project ..2 Cooperative ...3 Large scale farmer4 Other (Specify) ...8 Not applicable9

16.0 LIVELIHOOD CONSTRAINTS

From the list of constraints on the right select:					List of constraints	
16.1	the 5 most important problems		16.2	the 5 least important problems		1. Access to Land 2. Ownership of Land 3. Poor farm Inputs 4. Soil Fertility 5. Access to improved seed 6. Irrigation facilities 7. Access to chemical Inputs 8. Cost of Inputs 9. Extension Services 10. Access to forest resources 11. Hunting and Gathering 12. Access to potable water 13. Access to credit 14. Harvesting 15. Threshing 16. Storage 17. Processing 18. Market Information 19. Transport costs 20. Distruction by animals 21. Stealing 22. Pests and Diseases 23. Local government taxation 24. Access to off Farm Income
	Order of most importance	Constraint		Order of least importance	Constraint	
	(1)	(2)		(1)	(2)	
16.1.1	most important	<input type="checkbox"/>	16.2.1	Least important	<input type="checkbox"/>	
16.1.2	2nd most important	<input type="checkbox"/>	16.2.2	2nd least important	<input type="checkbox"/>	
16.1.3	3rd most important	<input type="checkbox"/>	16.2.3	3rd least important	<input type="checkbox"/>	
16.1.4	4th most important	<input type="checkbox"/>	16.2.4	4th least important	<input type="checkbox"/>	
16.1.5	5th most important	<input type="checkbox"/>	16.2.5	5th least important	<input type="checkbox"/>	

17.0 ANIMAL CONTRIBUTION TO CROP PRODUCTION

17.1	Did you use Draft animals to cultivate your land during 02/03 (Yes=1, No=2) <input type="checkbox"/>				17.2	Did you apply organic fertiliser during 02/03 (Yes=1, No=2) <input type="checkbox"/>			
(If no, go to question 17.2)					(If no, go to question 18)				
S/N	Type of Draft	Number owned	Number used	Area cultivated (acres)	S/N	Type of organ Fertiliser	Area applied (acres)		
	(1)	(2)	(3)	(4)		(1)	(2)		
17.1.1	Oxen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.2.1	FYM	<input type="checkbox"/>		
17.1.2	Bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.2.2	Compost	<input type="checkbox"/>		
17.1.3	Cows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
17.1.4	Donkeys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Definitions and working page for page 12

Question Specific Definitions

Crop Extension Advice (Section 15.2)

Mechanisation/LST: LST means Labour Saving Technology

Section 16.0 Livelihood constraints

16.1 List the five most important problems in order of most importance:

1. Read out the list of constraints to the respondent and ask him to select the ones that are a problem. Place a ✓ against the constraints that are a problem.
2. Read the selected constraints and ask the farmer to select 5 which create the largest problems
3. Ask the farmer to list these in order of importance and enter in column 2

16.2 List the five least important problems in order of least importance:

1. Read out the list of constraints to the respondent and ask him to select the ones that are **NOT** a problem. Place an ✗ against the constraints that are **NOT** a problem.
2. Read the selected constraints and ask the farmer to select 5 which create the least problems
3. Ask the farmer to list these in order of least importance and enter in column 2

18.0 CATTLE POPULATION, INTAKE AND OFFTAKE															
18.1 Did the household own, raise or manage any CATTLE during 2002/03 agriculture year? (Yes =1 No =2) <input type="checkbox"/>															
(If no go to section 19.0)															
18.2 Cattle Population as of 1st October 2003					18.3 Cattle Intake during 2002/2003										
S/N	Cattle type <i>(1)</i>	Number of Indigenous <i>(2)</i>	Number of Improved		Total <i>(5)</i>	S/N	Number Purchased <i>(6)</i>	Number given /obtained <i>(7)</i>	Number Born <i>(8)</i>	Total Intake of Cattle <i>(9)</i>	Average Value per head <i>(10)</i>				
			Beef <i>(3)</i>	Dairy <i>(4)</i>											
18.2.1	Bulls	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.1	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
18.2.2	Cows	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.2	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
18.2.3	Steers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.3	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
18.2.4	Heifers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.4	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
18.2.5	Male Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
18.2.6	Female Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
Grand Total					<input type="text"/>	Total Intake					<input type="text"/>				
18.4 Cattle Offtake during 2002/2003								18.5 Cattle diseases							
S/N	Cattle type <i>(1)</i>	Number Sold/traded <i>(2)</i>	Number con sumed by hh <i>(3)</i>	Number given away/stolen <i>(4)</i>	Number died <i>(5)</i>	Total Cattle Offtake <i>(6)</i>	Average value per head <i>(7)</i>	S/N	Disease/ parasite <i>(1)</i>	Number Infected <i>(2)</i>	Number Treated <i>(3)</i>	No. Rec -overed <i>(4)</i>	Number Died <i>(5)</i>	Last vacci nated <i>(6)</i>	Main Sou -rce <i>(7)</i>
18.4.1	Bulls	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.1	Tick Borne diseases	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
18.4.2	Cows	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.2	CBPP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
18.4.3	Steers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.3	Trypanosomiasis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X
18.4.4	Heifers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.4	Lumpy Skin Disease	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
18.4.5	Male Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.5	Helmenthioitis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X
18.4.6	Female Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.6	FMD	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total Offtake						<input type="text"/>	<p><u>Last Vaccinated (Col 6)</u></p> <p>20031 20004 20022 before 20005 20013 Not Vaccinated...6</p> <p><u>Main Source of vaccine (Col 7)</u></p> <p>Private Vet Clinic ..1 Other8 District Vet Clinic ..2 Not applicable9 NGO/Project.....3</p>								
18.6 Milk Production							<p><u>Sold to Q18.6 Col 5)</u></p> <p>Neighbour.....1 Largescale farm ..5 Local Market.....2 Trader at Farm ...6 Secondary Market ...3 Did not sell7 Processing industry .4 Other8</p>								
S/N	Season <i>(1)</i>	Litres of milk/day <i>(2)</i>	No. of cattle milked/day <i>(3)</i>	Value/litre <i>(4)</i>	Sold to <i>(5)</i>	Sold/day (Litres) <i>(6)</i>									
18.6.1	Wet Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
18.6.2	Dry Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									

Definitions and working page for page 13**General definitions for page 13**

Cattle Intake during 2002/03: Cattle purchased, given or born which increases the number of cattle in the herd.

Cattle Offtake during 2002/03:

Cattle removed from the herd, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 18.0)**Cattle type (Q 18.2 & 18.4, Col 1)**

Bull: Mature **Uncastrated** male cattle used for breeding

Cow: Mature female cattle that has given birth at least once

Steer: Castrated male cattle over 1 year

Heifer: Female cattle of 1 year up to the first calving

Calves: Young cattle under 1 year of age

Average Value per Head (Q 18.3, (Col 7 & 9) & 18.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Cattle vaccination (18.5 col 1)

ECF: East Coast Fever

FMD: Foot and Mouth Disease

CBPP: Contagious Bovine Pleura Pneumonia

Section 18.0 Cattle Population, Intake & Offtake.

NOTE: Section 18.1 is for the current population (as of 1st October 2003);
Section 18.2 and 18.3 is for movement in and out of the herd
during the 2002/03 agriculture year.
Section 18.4 is for diseases encountered during the agriculture year.

1. If the household has cows, you would normally expect them to have calves in column 8

2. If calves are reported in column 2, 3, or 4 (18.2.6, 18.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of cattle the importance of this must be reflected in Q 2.2.3

Section 18.5 If cattle are reported to have died in Column 5 then at least that number should be reported in 18.4 col 4

Working area for page 13

19.0 GOAT POPULATION, INTAKE AND OFFTAKE															
19.1 Did the household own, raise or manage any GOATS during the 2002/03 agriculture year? (Yes =1 No =2) <input type="checkbox"/>															
19.2 Goat Population as of 1st October 2003					19.3 Goat Intake during 2002/2003										
S/N	Goat type	Number of Indigenous	Number of Improved		Total	S/N	Number Purchased	Number given /obtained	Number Born	Total Intake of Goats	Average Value per head				
	(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)				
19.2.1	Billy Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.1	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
19.2.2	Castrated Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.2	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
19.2.3	She Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.3	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
19.2.4	Male Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.4	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>				
19.2.5	She Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.5	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>				
Grand Total					<input type="text"/>	Total Intake					<input type="text"/>				
19.4 Goat Offtake during 2002/2003								19.5 Goat diseases							
S/N	Goat type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Goat Offtake	Average value per head	S/N	Disease/parasite	Number Infected	Number Treated	No. Rec-oved	Number Died	Last vacci nated	Main Sou -rce
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(1)	(2)	(3)	(4)	(5)	(6)	(7)
19.4.1	Male goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>								
19.4.2	Castrated Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.5.1	Foot Rot	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X
19.4.3	She Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.5.2	CC PP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
19.4.4	Male Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.5.3	Helminthiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X
19.4.5	She Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.5.4	Tetanus	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Total Offtake						<input type="text"/>		19.5.5	Mange	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X
19.6 Milk Production							Sold to Q19.6 Col 5) Neighbour.....1 Largescale farm ..5 Local Market.....2 Trader at Farm ...6 Secondary Market ...3 Did not sell7 Processing industry .4 Other8				Last Vaccinated (Col 6) 20031 20004 20022 before 20005 20013 Not Vaccinated...6				
S/N	Season	Litres of milk/day	No. of Goats milked/day	Value/litre	Sold to	Sold/day (Litres)									
	(1)	(2)	(3)	(4)	(5)	(6)									
19.6.1	Wet Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
19.6.2	Dry Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
							Main Source of vaccine (Col 7) Private Vet Clinic ..1 Other8 District Vet Clinic ..2 Not Vaccinable9 NGO/Project.....3								

Definitions and working page for page 14

Goat definitions for page 14

Goat Intake during 2002/03: Goat purchased, given or born which increases the number of goats in the herd.

Goat Offtake during 2002/03:

Goat removed from the herd, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 19.0)

Goat type (Q 19.2 & 19.4, Col 1)

Billy Goat (he-goat): Mature **Uncastrated** male goat used for breeding

Castrated goat: Male goat that has been castrated.

She Goat: Mature female goat over 9 months of age

Kid: Young goat under 9 months of age.

Average Value per Head (Q 19.3, (Col 7 & 9) & 19.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Goat vaccination (19.5 col 1)

FMD: Foot and Mouth Disease

CCPP: Contagious Caprine Pleura Pneumonia

LSD: Lumpy Skin Disease

Section 19.0 Goat Population, Intake & Offtake.

NOTE: Section 19.1 is for the current population (as of 1st October 2003); Section 19.2 and 18.3 is for movement in and out of the herd during the 2002/03 agriculture year. Section 19.4 is for diseases encountered during the agriculture year.

1. If the household has she goats, you would normally expect them to have kids in column 8
2. If kids are reported in column 2, 3, or 4 (19.2.6, 19.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of goats the importance of this must be reflected in Q 2.2.3

Section 19.5 If goats are reported to have died in Column 5 then at least that number should be reported in 19.4 col 4

Working area for page 14

20.0 SHEEP POPULATION, INTAKE AND OFFTAKE															
20.1	Did the household own, raise or manage any SHEEP during the 2002/03 agriculture year? (Yes =1 No =2) <input type="checkbox"/>														
(If no go to section 21.0)															
20.2	Sheep Population as of 1st October 2003				20.3	Sheep Intake during 2002/2003									
S/N	Sheep type	Number of Indigenous	Number of Improved		Total	S/N	Number Purchased	Number given /obtained	Number Born	Total Intake of Sheep	Average Value per head				
	(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)				
20.2.1	Ram	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	20.3.1	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
20.2.2	Castrated Sheep	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	20.3.2	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
20.2.3	She Sheep	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	20.3.3	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>				
20.2.4	Male lamb	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	20.3.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
20.2.5	She lamb	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	20.3.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
Grand Total					<input type="text"/>	<input type="text"/>									
20.4	Sheep Offtake during 2002/2003						20.5	Sheep diseases							
S/N	Sheep type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Sheep Offtake	Average value per head	S/N	Disease/parasite	Number Infected	Number Treated	No. Rec-oved	Number Died	Last vaccinated	Main Source
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(1)	(2)	(3)	(4)	(5)	(6)	(7)
20.4.1	Ram	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
20.4.2	Castrated Sheep	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	20.5.1	Foot Rot	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X
20.4.3	She Sheep	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	20.5.2	CC PP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
20.4.4	Male lamb	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	20.5.3	Helminthiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	X
20.4.5	She lamb	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	20.5.4	Trypanosomiasis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total Offtake						<input type="text"/>	<input type="text"/>								
										<p>Last Vaccinated (Col 6) 20031 20004 20022 before 20005 20013 Not Vaccinated...6</p> <p>Main Source of vaccine (Col 7) Private Vet Clinic ..1 Other8 District Vet Clinic ..2 Not applicable9 NGO/Project.....3</p>					

Definitions and working page for page 15**Sheep definitions for page 15**

Sheep Intake during 2002/03: Sheep purchased, given or born which increases the number of Sheep in the herd.

Sheep Offtake during 2002/03:
Sheep removed from the herd, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 20.0)**Sheep type (Q 20.2 & 20.4, Col 1)**

Ram: Mature **Uncastrated** male goat used for breeding

Castrated sheep: Male sheep that has been castrated.

Ewe: Mature female sheep over 9 months of age

Lamb: Young sheep under 9 months of age.

Average Value per Head (Q 20.3, (Col 7 & 9) & 20.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Sheep vaccination (20.5 col 1)

FMD: Foot and Mouth Disease

CCPP: Contagious Caprine Pleura Pneumonia

Section 20.0 Sheep Population, Intake & Offtake.

NOTE: Section 20.1 is for the current population (as of 1st October 2003);
Section 20.2 and 20.3 is for movement in and out of the herd during the 2002/03 agriculture year.
Section 20.4 is for diseases encountered during the agriculture year.

1. If the household has ewes, you would normally expect them to have kids in column 8
2. If lambs are reported in column 2, 3, or 4 (20.2.6, 20.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of Sheep the importance of this must be reflected in Q 2.2.3

Section 20.5 If Sheep are reported to have died in Column 5 then at least that number should be reported in 20.4 col 4

Working area for page 15

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21.0 PIG POPULATION AND PRODUCTION															
21.1		Did the household own, raise or manage any PIGS during the 2002/03 agriculture year (Yes =1 No =2) <input type="checkbox"/>													
21.2		PIG Population as of 1 st October 2003											21.3 Pig increase during 2002/2003		
S/N	Pig type	Number													
	(1)	(2)													
21.2.1	Boar	<input type="text"/>													
21.2.2	Castrated male	<input type="text"/>													
21.2.3	Sow/Gilt	<input type="text"/>													
21.2.4	Male piglet	<input type="text"/>													
21.2.5	She piglet	<input type="text"/>													
Grand Total		<input type="text"/>													
21.4 Pig decrease during 2002/2003								21.5 Pig diseases/pests/conditions							
S/N	Pig type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Pig Offtake	Average value per head	S/N	Disease/ parasite	Number Infected	Number Treated	No. Rec- overed	Number Died	Last vacci- nated	Main Sou- rce
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(1)	(2)	(3)	(4)	(5)	(6)	(7)
21.4.1	Boar	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
21.4.2	Castrated male	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.1	Anthrax	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
21.4.3	Sow/Gilt	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.2	ASF	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
21.4.4	Male piglet	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.3	Anemia	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
21.4.5	She piglet	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.4	Helmenthiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Total Offtake						<input type="text"/>									
22.0 LIVESTOCK PEST & PARASITE CONTROL								22.3 Do you normally encounter a tick problem (Yes=1, No=2) <input type="checkbox"/>		Last Vaccinated (Col 6) 2003 ..1 20004 2002 ..2 before 20005 2001 ...3 Not Vaccinated.6					
								(If the response is 'NO' go to section 22.5)							
22.1 Did you deworm your animals during 2002/03 (Yes=1, No=2) <input type="checkbox"/>								22.4 Which methods of tick control did you use <input type="checkbox"/>		Main Source (Col 7) Private Vet Clinic ..1 District Vet Clinic ..2 NGO/Project3 Other8 Not applicable9					
(If the response is 'NO' go to section 22.3)								Control method (Q 22.4) None..1 Spraying ..2 Dipping..3 Smearing ..4 Other.8							
22.2 Which animals did you deworm ? (Tick appropriate boxes)								22.5 Do you normally encounter a tsetse fly problem (Y=1, N=2) <input type="checkbox"/>		Main Source (Col 7) Private Vet Clinic ..1 District Vet Clinic ..2 NGO/Project3 Other8 Not applicable9					
Cattle <input type="checkbox"/> Goats <input type="checkbox"/> Sheep <input type="checkbox"/> Pigs <input type="checkbox"/>								22.6 Which methods of control did you use <input type="checkbox"/>							
								Control method (Q22.6) None .1 Spray .2 Dipping .3 Trapping .4 Other .8							

Definitions and working page for page 16**Pigs definitions for page 16**

Pig Intake during 2002/03: Pigs purchased, given or born which increases the number of Pigs in the production unit.

Pig Offtake during 2002/03:

Pigs removed from the production unit, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 21.0)**Pigs type (Q 21.2 & 21.4, Col 1)**

Boar: Mature **Uncastrated** male pig used for breeding

Castrated Pig: Male pig that has been castrated.

Sow: Mature female pig that has given birth to at least one litter of pigs.

Gilt: Female pig of 9 months up to the first farrowing.

Piglet: Young pig under 3 months of age.

Average Value per Head (Q 21.3, (Col 7 & 9) & 21.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Pig vaccination (21.5 col 1)

ASF: African Swine Fever

Section 21.0 Pig Population, Intake & Offtake.

NOTE: Section 21.1 is for the current population (as of 1st October 2003); Section 21.2 and 21.3 is for movement in and out of the herd during the 2002/03 agriculture year. Section 21.4 is for diseases encountered during the agriculture year.

1. If the household has sows, you would normally expect them to have piglets in column 8
2. If piglets are reported in column 2, 3, or 4 (20.2.6, 20.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of Pigs the importance of this must be reflected in Q 2.2.3

Section 20.5 If Pigs are reported to have died in Column 5 then at least that number should be reported in 20.4 col 4

Working area for page 16

|

23.0 Other Livestock currently available and details of consumption and sales during the last 12 months										
	Animal type	Current		Sold during 2002/03		Consumed during 2002/03				
		Number		Number	Average Value/head	Number	Average Value/head			
		(1)		(2)	(3)	(4)	(5)			
23.1	Indigenous Chicken	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
23.2	Layer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
23.3	Broiler	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
23.4	Ducks	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
23.5	Turkeys	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
23.6	Rabbits	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
23.7	Donkeys	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
23.8	Horses	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X X X	X X X X X			
23.9	Other	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
24.0	CHICKEN DISEASES	Number infected		Number Treated		Number Died		Number Recovered		
24.1	Newcastle Disease	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.2	Gumboro	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.3	Coccidiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.4	Chorysa	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.5	Fowl typhoid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
25.0	LIVESTOCK PRODUCT	Sold during 2002/03				Consumed/utilised during 2002/03				
		Number				Average Value/unit				
25.1	Eggs	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	X	<input type="text"/>	<input type="text"/>	<input type="text"/>	
25.2	Hides	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
25.3	Skins	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
26.0	List in order of importance the outlets for the sale of Livestock						27.0 Access to functional Livestock structures /accessories			
S/N	Importance of outlet	Outlets for Cattle	Outlets for Goat	Outlets for Sheep	Outlets for Pigs	Outlets for Chickens	S/N	Type of structure/accessory	Source of Structure	Distance to structure (Km)
	(1)	(2)	(3)	(4)	(5)	(6)		(1)	(2)	(3)
26.1	1st	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	27.1	Cattle Dip	<input type="text"/>	<input type="text"/>
26.2	2nd	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	27.2	Spray Race	<input type="text"/>	<input type="text"/>
26.3	3rd	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	27.3	Hand powered sprayer	<input type="text"/>	<input type="text"/>
26.4	4th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	27.4	Cattle crush	<input type="text"/>	<input type="text"/>
26.5	5th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	27.5	Primary Market	<input type="text"/>	<input type="text"/>
Outlet code (Col 2, 3, 4 & 5) Trader at farm1 Abattoir/factory.....5 Local Market2 Another farmer6 Secondary market/auction.....3 Other (Specify).....8 Neighbour4							27.6	Secondary Market	<input type="text"/>	<input type="text"/>
Source of structure (Q27.0 - Col 2) Owns1 NGO6 Cooperative2 Large scale farm7 Local farmers association3 Other8 Gov extension/veterinary4 Not applicable9 Development project5							27.7	Abattoir	<input type="text"/>	<input type="text"/>
							27.8	Slaughter Slab	<input type="text"/>	<input type="text"/>
							27.9	Hide/skin shed	<input type="text"/>	<input type="text"/>
							27.10	Input supply	<input type="text"/>	<input type="text"/>
							27.11	Veterinary Clinic	<input type="text"/>	<input type="text"/>
							27.12	Village holding ground	<input type="text"/>	<input type="text"/>
							27.13	village watering point/dam	<input type="text"/>	<input type="text"/>
							27.14	Drencher	<input type="text"/>	<input type="text"/>

Definition and working page for page 17**Question Specific Definitions Section 26.0)****Procedures for questions****Section 23.0 - Other Livestock:**

1. The current number includes both adult and young animals. For example The number of chickens in col 1 would include adults and chicks.

Question Specific Definitions Section 27.0)**Access to functional Livestock Structures/accessories (Section 27.0):**

NOTE: The structures must be functional. If they are not working/derelect then they should not be included. The distance to the next nearest functional structure should be taken.

Spray Race: A fixed spray structure on an animal race for spraying acaricide

Cattle crush: Corridor structure for restraining cattle.

Abattoir: Large building designed for slaughtering a large amount of animals. It normally has complex structures to assist in the slaughter and storage and a high level of hygiene is maintained.

Slaughter Slab: Concrete slab designed for slaughtering a small amount of animals

Hides: obtained from Cattle

Skins: Obtained from sheep and goats

Hide/Skin Shed: Shed for curing/tanning animal skins and hides

Village holding Pen: Enclosure for containing large amount of livestock which is owned communally.

Drencher: Device for orally administering medicine to livestock. If no product was sold in 2002 enter "0" in columns 6, 7 & 9.

Section 26.0 - Outlets for livestock:

Using the codes enter the outlets for the sale of different livestock in order of importance. If there are, for example, only 2 outlets mark the rest with a "X".

28.0 FISH FARMING

28.1 Was **Fish farming** carried out by this household during 2002/2003? (Yes =1, No=2) (If the response is 'NO' go to section 29.0)

28.2 Specify details of **fish farming practices**

S/N	Product ion unit number	Fish farming system	Size of unit/pond (m2)	Source of fingerling	frequency of stocking (No/year)	Number of stocked fish			Number of fish harvested	weight of fish harvested	weight of fish sold	Mainly sold to
						Tilapia	Carp	Other				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
28.1.1	1	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
28.1.2	2	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
28.1.3	3	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Farming System (Col 2)
 Natural Pond...1 Natural Lake...3 Other...8
 Dug out pond...2 Water reservoir...4

Source of fingerlings (Col 4)
 Own pond...1 NGO/Project...3 Private trader...5
 Government Institution...2 Neighbour...4 Other...8

Mainly sold to (Col 12)
 Neighbour...1 Secondary Market...3 Large scale farm...5 Did not sell...7
 Local Market...2 Processing industry...4 Trader at Farm...6 Other...8

29.0 LIVESTOCK EXTENSION

29.1 Did you receive **livestock extension advice** during 02/03 (Yes=1, No=2) (If the response is 'NO' go to section 30.0)

S/N	Livestock Extension Message	Received Advice Yes=1, No=2	Adopted Yes=1 No=2	Source of Livestock Extension
	(1)	(2)	(3)	(4)
29.1.1	Feed and Proper feeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.2	Housing (Goat, Dairy, Poultry, Pigs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.3	Proper Milking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.4	Milk Hygiene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.5	Disease control (dipping/spraying)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.6	Herd/Flock size and selection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.7	Pasture Establishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.8	Group formation and strengthening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.9	Calf rearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.10	Use of improved bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.11	Other livestock extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source of livestock extension (Col 4)
 Government...1 NGO/Dev project...2 Cooperative...3 Large scale farmer...4 Other (Specify)...8

29.2 For the following **Livestock Extension Service Providers** give details

S/N	Extension Provider	If you pay for extension, what is the cost/yr	Contact farmer/group member (Y=1, N=2)	No. of visits by extension agency/year	No. of mess -ages adopted in the last 3 yrs	Quality of Service
	(1)	(2)	(3)	(4)	(5)	(6)
29.2.1	Government	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
29.2.2	NGO/dev project	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
29.2.3	Cooperative	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
29.2.4	Large Scale farmer	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
29.2.5	Other.....	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

Quality of service (Col 6) Very good...1 good...2 Average...3 Poor...4 No Good...5

30.0 GOVERNMENT REGULATORY PROBLEMS

31.1 Did you face problems with government regulations during 2002/03 (Y=1, N=2) (If the response is no go to section 31.0)

	Problem code	Problem code
30.1.1	1st	Land ownership by government...1 Restriction of sale between regions...2
30.1.2	2nd	Import of food items...3
30.1.3	3rd	Other (specify)...8

Definitions and working page for page 18**General definitions for Section 28.0**

Fish farming: Refers to the rearing/production of fish. It is different to fishing in that the fish have to be reared and fed in fish farming. Fishing traps or captures naturally occurring fish in rivers, lakes and the sea and should not be included in this section.

Question Specific Definitions (Section 28.2)

Production unit number (Col 1): A production unit is a pond river/lake which is treated as a separate entity for the production of fish eg it may be by virtue of manageable size, maturity of fish, type of fish etc. Eg a farmer may have 3 fish ponds. (each one is a separate production unit).

Frequency of stocking (Col 5): What is the number of times the farmer puts new fingerlings into the pond each year.

Fingerlings: These are young immature fish used for stocking ponds.

Sold: (Col 10 & 11)

If no fish were sold enter "0" in column 10 and 11)

Livestock Extension Services (Section 29.1)

Adopted (Col 3): This is the uptake of an intervention for 2 or more years

Livestock Extension Service providers (Section 29.2)

Contact Farmer: A farmer who is used by the extension services as a focal point to demonstrate new interventions to. The contact farmer then passes on the message to other farmers

Adopted (Col 5): This is the uptake of an intervention for 2 or more years

Working area for page 18

31.0 LABOUR USE				32.0 SUBSISTENCE vs NON-SUBSISTENCE																																																					
31.1 Who is mainly responsible for undertaking the following tasks:				32.1 Indicate if any members of the household was involved in the following activities and assess the percentage used for subsistence/consumption by the household:																																																					
S/N	Activity	Tick if carried out by hh	Main responsibility	S/N	Activity	Tick if hh was involved in activity	Estimate % used for subsistence	Estimate % used for no subsistence	Check Total																																																
	(1)	(2)	(3)		(1)	(2)	(3)	(4)	(5)																																																
31.1.1	Land Clearing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.1	Crop production	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.2	Soil preparation (by hand)	<input type="checkbox"/>	<input type="checkbox"/>	32.1.2	Livestock production	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.3	Soil preparation (oxen/tractor)	<input type="checkbox"/>	<input type="checkbox"/>	32.1.3	Vegetable production	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.4	Planting	<input type="checkbox"/>	<input type="checkbox"/>	32.1.4	Tree cutting for firewood	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.5	Weeding	<input type="checkbox"/>	<input type="checkbox"/>	32.1.5	Tree logging for poles	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.6	Crop Protection	<input type="checkbox"/>	<input type="checkbox"/>	32.1.6	Tree logging for timber	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.7	Harvesting	<input type="checkbox"/>	<input type="checkbox"/>	32.1.7	Tree logging for charcoal	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.8	Crop processing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.8	fishing	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.9	Crop marketing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.9	bee keeping	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.10	Cattle rearing/husbandry	<input type="checkbox"/>	<input type="checkbox"/>	32.1.10	employment/off farm	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.11	Cattle herding	<input type="checkbox"/>	<input type="checkbox"/>	32.1.11	employment/off farm	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.12	Cattle marketing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.12	Remittances	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.13	Goat/sheep rearing/husbandry	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.14	Goat and sheep herding	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.15	Goat and sheep marketing	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.16	Milking	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.17	Pig rearing/husbandry	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.18	Poultry keeping	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.19	Collecting Water	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.20	Collecting Firewood	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.21	Pole cutting	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.22	Timber wood cutting	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.23	Building/maintaining house	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.24	Making Beer	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.25	Bee keeping	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.26	Fishing	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.27	Fish farming	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.28	Off-farm income generation	<input type="checkbox"/>	<input type="checkbox"/>																																																						
Responsibility (Col 3) HH head alone1 Girls6 Adult Males2 Boys & Girls7 Adult Females.....3 All household members.....8 Adults.....4 Hired labour9 boys 5				33.0 ACCESS TO INFRASTRUCTURE & OTHER SERVICES																																																					
				<table border="1"> <thead> <tr> <th>S/N</th> <th>Type of service</th> <th>Distance in Km</th> <th>S/N</th> <th>Type of service</th> <th>Distance in Km</th> </tr> <tr> <td></td> <td>(1)</td> <td>(2)</td> <td></td> <td>(1)</td> <td>(2)</td> </tr> </thead> <tbody> <tr><td>33.1</td><td>Primary School</td><td><input type="text"/></td><td>32.7</td><td>Feeder Road</td><td><input type="text"/></td></tr> <tr><td>33.2</td><td>Secondary School</td><td><input type="text"/></td><td>32.8</td><td>All weather road</td><td><input type="text"/></td></tr> <tr><td>33.3</td><td>Health Clinic</td><td><input type="text"/></td><td>32.9</td><td>Tarmac road</td><td><input type="text"/></td></tr> <tr><td>33.4</td><td>Hospital</td><td><input type="text"/></td><td>32.10</td><td>Primary market</td><td><input type="text"/></td></tr> <tr><td>33.5</td><td>District Capital</td><td><input type="text"/></td><td>32.11</td><td>Secondary market</td><td><input type="text"/></td></tr> <tr><td>33.6</td><td>Regional Capital</td><td><input type="text"/></td><td>32.12</td><td>Tertiary market</td><td><input type="text"/></td></tr> </tbody> </table>						S/N	Type of service	Distance in Km	S/N	Type of service	Distance in Km		(1)	(2)		(1)	(2)	33.1	Primary School	<input type="text"/>	32.7	Feeder Road	<input type="text"/>	33.2	Secondary School	<input type="text"/>	32.8	All weather road	<input type="text"/>	33.3	Health Clinic	<input type="text"/>	32.9	Tarmac road	<input type="text"/>	33.4	Hospital	<input type="text"/>	32.10	Primary market	<input type="text"/>	33.5	District Capital	<input type="text"/>	32.11	Secondary market	<input type="text"/>	33.6	Regional Capital	<input type="text"/>	32.12	Tertiary market	<input type="text"/>
S/N	Type of service	Distance in Km	S/N	Type of service	Distance in Km																																																				
	(1)	(2)		(1)	(2)																																																				
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33.6	Regional Capital	<input type="text"/>	32.12	Tertiary market	<input type="text"/>																																																				
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Satisfied with service (Col 4) Very good1 Average.....3 No good5 Good2 Poor4 Not applicable 9																																																									

Definition and working page for page 19**Question specific definitions (Section 31.1)****Activity (Col 1):**

Land Clearing: Refers to removing trees/bush/grass prior to ploughing

Soil Preparation: Refers to the seedbed preparation (ploughing, harrowing, etc).

Cattle Rearing: Tending to cattle at home, eg assisting with births, castration, etc. Different livestock keeping activity to herding.

Cattle Herding: Moving livestock from place to place for grazing and water. If herding is carried out the respondent must also give a response to rearing/husbandry

Question Specific Definitions (Section 32.0.0)**Activity (Col 1):**

Subsistence: For the family's survival, rather than for the generation of cash. This includes feeding the hh, provision of water and fuel for cooking. The source of these products are usually from the land resources available to the family. Remember that not all cash earnings are for non subsistence purposes/activities as cash can be used to purchase subsistence items eg food.

Non -subsistence: Cash used for items and activities which are not crucial for the survival of the family. This includes modern medication, non working clothes, refined beer, school fees, etc.

Procedures for (Section 31.1)**Section 31.1 ((Labour use)**

1. For each listed activity in column 1, place a tick in column 2 if any member of the household was involved in that activity during the 2002/03 agriculture year.
2. After completing column 2 return to the first activity in row 27.1.1 and complete column 3.
3. Make sure you stress MAINLY responsible.

NOTE: If an activity has been mentioned previously in the questionnaire eg that the hh keeps chickens, make sure a response is obtained in the appropriate place ie poultry keeping.

If off-farm income generation is mentioned, check for responses to off farm income in other parts of the questionnaire

Section 32.0 - Subsistence vs Non-subsistence

1. For each listed activity in column 1, place a tick in column 2 if any member of the household was involved in that activity during the 2002/03 agriculture year.
2. After completing column 2 return to the first activity in row 32.1.1 and complete column 3 & 4. For each activity make an assessment of the percentage used for subsistence survival and the percent converted to cash for non subsistence goods and items.
3. Make sure you stress MAINLY responsible.

NOTE: Cross check the responses with previous sections in the questionnaire. eg if a response is given to remittances check for an entry in question 2.2.5

34.0 HOUSEHOLD FACILITIES																															
34.1	House Construction	34.2 Household assets																													
<p>For the main dwelling, what are the main building materials used in the construction of the following</p> <p>34.1.1: Roof <input type="checkbox"/> 34.1.2 Number of rooms <input type="checkbox"/> <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Roof Material</p> <p>Iron Sheets.....1 Tiles2 Concrete3 Asbestos4 Grass/leaves.....5 Grass & mud.....6 Other (Specify) 8</p> </div>		<p>Does your household own the following?</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">Asset</th> <th style="width: 20%;">Y=1 N=2</th> </tr> </thead> <tbody> <tr><td>34.2. Radio/cassette, music system)</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Telephone (landline)</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Telephone (mobile)</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Iron</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Wheelbarrow</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Bicycle</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Vehicle</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Television</td><td><input type="checkbox"/></td></tr> </tbody> </table>		Asset	Y=1 N=2	34.2. Radio/cassette, music system)	<input type="checkbox"/>	34.2. Telephone (landline)	<input type="checkbox"/>	34.2. Telephone (mobile)	<input type="checkbox"/>	34.2. Iron	<input type="checkbox"/>	34.2. Wheelbarrow	<input type="checkbox"/>	34.2. Bicycle	<input type="checkbox"/>	34.2. Vehicle	<input type="checkbox"/>	34.2. Television	<input type="checkbox"/>										
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34.5	Access to toilet facilities	34.6 Food consumption patterns																													
<p>34.5.1 What type of toilet does your hh use <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Type of toilet</p> <p>No toilet/bush.....1 Improved pit latrine - hh owned.....4 Flush toilet2 Other type (specify)5 Pit latrine - traditional ..3</p> </div>		<table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 80%;">34.6. Number of meals the hh normally has per day</td> <td style="width: 20%;"><input type="checkbox"/></td> </tr> <tr> <td>34.6. Number of days hh consumed meat last w</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.6. How often did the hh have problems in satisfying the food needs of the hh last year?</td> <td><input type="checkbox"/></td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Problems satisfying hh food needs (row 34.6.3)</p> <p>Never1 Seldom2 Sometimes3 Often4 Always5</p> </div>		34.6. Number of meals the hh normally has per day	<input type="checkbox"/>	34.6. Number of days hh consumed meat last w	<input type="checkbox"/>	34.6. How often did the hh have problems in satisfying the food needs of the hh last year?	<input type="checkbox"/>																						
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34.7	Source of Household income																														
<p>34.7.1 What is the households main source of cash income? <input type="checkbox"/> <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Source of Income codes</p> <table style="width:100%;"> <tr> <td style="width: 50%;">Sale of food crops01</td> <td style="width: 50%;">Wages or salaries in cash07</td> </tr> <tr> <td>Sale of Livestock.....02</td> <td>Other casual cash earnings ..08</td> </tr> <tr> <td>Sale of livestock products ...03</td> <td>Cash remittances09</td> </tr> <tr> <td>Sale of cash crops.....04</td> <td>Fishing10</td> </tr> <tr> <td>Sale of forest products05</td> <td>Other98</td> </tr> <tr> <td>Business income.....06</td> <td>Not applicable99</td> </tr> </table> </div>				Sale of food crops01	Wages or salaries in cash07	Sale of Livestock.....02	Other casual cash earnings ..08	Sale of livestock products ...03	Cash remittances09	Sale of cash crops.....04	Fishing10	Sale of forest products05	Other98	Business income.....06	Not applicable99																
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Definition and working page for page 20**Household facilities (Section 34):****Number of rooms used for sleeping in the household (Q 34.1)**

Include sitting room, dining room, kitchen, etc if used for sleeping. It also includes rooms outside the main dwelling

A room is defined as a space which is separate from the rest of the building by a permanent wall or division. A building/house that is not divided into rooms is considered to have one room.

Household assets (Q 34.2): these assets must be functioning. Do not include if broken.

Access to drinking water (Q 34.4): If there is more than one source, use the one, which the hh uses most frequently.

Main source of hh cash income:

Activity that provides the hh with the most cash during 2002/03 agriculture year.

Average/maximum yields						Use this table to compare the yields calculated in sections 7.1, 7.2, and 7.3. They are STRICTLY to be used as guidelines only and the sole purpose is to assist in getting the correct area and harvest for each crop					
Crop Name	kg/ha		kg/acre		Crop Name	kg/ha		kg/acre			
	Average	Max	Average	Max		Average	Max	Average	Max		
11 Maize	1200	6250	486	2530	86 Cabbage			0	0		
12 Paddy	700	4000	283	1619	87 Tomatoes			0	0		
13 Sorghum	750	3500	304	1417	88 Spinach			0	0		
14 Bulrush Millet	350	3000	142	1215	89 Carrot			0	0		
15 Finger Millet	300	2500	121	1012	90 Chillies			0	0		
16 Wheat	1200	4500	486	1822	91 Amaranths			0	0		
17 Barley	1400	2300	567	931	92 Pumpkins			0	0		
21 Cassava	3000	7000	1215	2834	93 Cucumber			0	0		
22 Sweet Potato	600	8000	243	3239	94 Egg Plant			0	0		
23 Irish potatoes	750	8500	304	3441	95 Water Mellon			0	0		
24 Yams	4000	10000	1619	4049	96 Cauliflower			0	0		
25 Cocoyams	2500	5000	1012	2024	52 Sisal	800	25000	324	10121		
26 Onions			0	0	54 Coffee	500	100	202	40		
27 Ginger			0	0	55 Tea	2500	10000	1012	4049		
31 Beans	400	1300	162	526	56 Cacao	200	1000	81	405		
32 Cowpeas	300	1750	121	709	57 Rubber	400	1400	162	567		
33 Green gram			0	0	58 Wattle			0	0		
34 Pigeon pea	600	2000	243	810	59 Kapok			0	0		
35 Chick peas	500	1500	202	607	60 Sugar Cane	60000	150000	24291	60729		
36 Bambara nut	600	4000	243	1619	61 Cardamom			0	0		
41 Sunflower	600	1700	243	688	71 Banana	10000	50000	4049	20243		
42 Simsim	300	1000	121	405	72 Avocado			0	0		
43 Groundnut	600	4000	243	1619	73 Mangoes	10000	25000	4049	10121		
47 Soyabeans	1300	2500	526	1012	74 Papaw	50000	70000	20243	28340		
48 Caster seed	300	750	121	304	76 Orange	20000	40000	8097	16194		
75 Pineapple	25000	60000	10121	24291	77 Grape fruit	30000	50000	12146	20243		
50 Cotton	300	1500	121	607	78 Grapes	5000	30000	2024	12146		
51 Tobacco	500	2000	202	810	79 Mandarin/tange	20000	40000	8097	16194		
53 Pyrethrum			0	0	80 Guava	7000	35000	2834	14170		
62 Jute	800	3500	324	1417	81 Plums			0	0		
44 Palm Oil	1200	5000	486	2024	82 Apples			0	0		
45 Coconut	2000	8000	810	3239	83 Pears			0	0		
46 Cashewnut	9	60/tree	4	24	84 Pitches			0	0		

Back Page Reference material

This page contains reference information that may be required to complete some of the questions in the questionnaire.

Weights and measures

1 hectare = 10,000 sq metres (100 x 100 metres)
 1 kilometre = 1000 metres
 1 acre = 4840 square yards (110 x 44 yards)

Conversions

1 hectare = 2.47 acres
 1 mile = 1.61 Kilometres

Kg equivalents

The following standards may be used as a guide to obtain kg if the reported unit is different. Only use these conversions if the respondent is unable to provide weights in kgs.

	Crop Name	Number of Kgs			
		Standard		Non-standard	
		Bag	Tin	Name	kgs
11	Maize	100	18	Rumbesi	140
12	Paddy	75	15		
13	Sorghum	100	18		
14	Bulrush Millet	100	18		
15	Finger Millet	120	20		
16	Wheat	75	15		
17	Barley	75	15		
21	Cassava	60	12		
22	Sweet Potatoe	80	16		
23	Irish potatoes	80	16		
24	Yams	80	16		
25	Cocoyams	80	16		
26	Onions	80	16		
27	Ginger	75	15		
31	Beans	100	20		
32	Cowpeas	100	20		
33	Green ram	100	20		
34	Pigeon pea	100	20		
35	Chick peas	100	20		
36	Bambara nut	100	20		
41	Sunflower	60	12		
42	Simsim	100	20		
43	Groundnut	50	10		
47	Soyabeans	100	20		
48	Caster seed	100	20		
75	Pineapple	90	18		
50	Cotton	50	10		
51	Tobacco	70	14		
53	Pyrethrum	60	12		
62	Jute	50	10		
44	Palm Oil	100			
45	Coconut	75			
46	Cashewnut	80			

	Crop Name	Number of Kgs			
		Standard		Non-standard	
		Bag	Tin	Name	kgs
86	Cabbage	50			
87	Tomatoes	90			
88	Spinach	45			
89	Carrot	110			
90	Chillies	85			
91	Amaranths	50			
92	Pumpkins	60			
93	Cucumber	80			
94	Egg Plant	70			
95	Water Mellon	80			
96	Cauliflower	50			
52	Sisal	130			
54	Coffee	55			
55	Tea	60			
56	Cacao	60			
57	Rubber				
58	Wattle	90			
59	Kapok				
60	Sugar Cane	120			
61	Cardamom	100			
71	Banana	120			
72	Avocado	140			
73	Mangoes	130			
74	Papaw	100			
76	Orange	130			
77	Grape fruit	120			
78	Grapes	80			
79	Mandarin/tange	110			
80	Guava	110			
81	Plums	110			
82	Apples	110			
83	Pears	110			
84	Pitches	110			

For official use only:

If a question has a query, an indication will be made by the supervisor/data entry controller on the front page of the questionnaire. This space is to note what and where the problem is, the action required to be taken and the responsible person to take follow up action.

Nature of the problem:

Action Required: National supervisor action

Field supervisor action

Overall Status: Does not affect overall integrity of the questionnaire.
 More data is required before it can be used

Discard and resample
 Discard as missing data